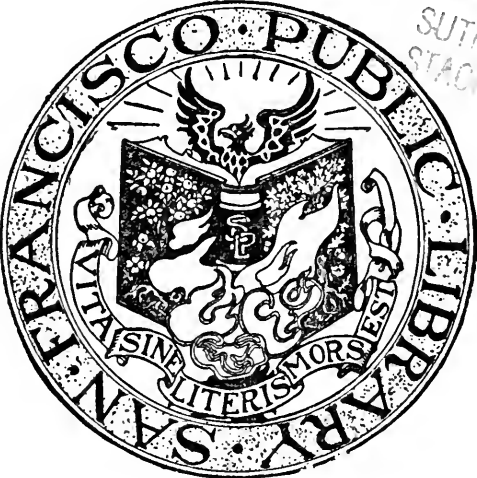
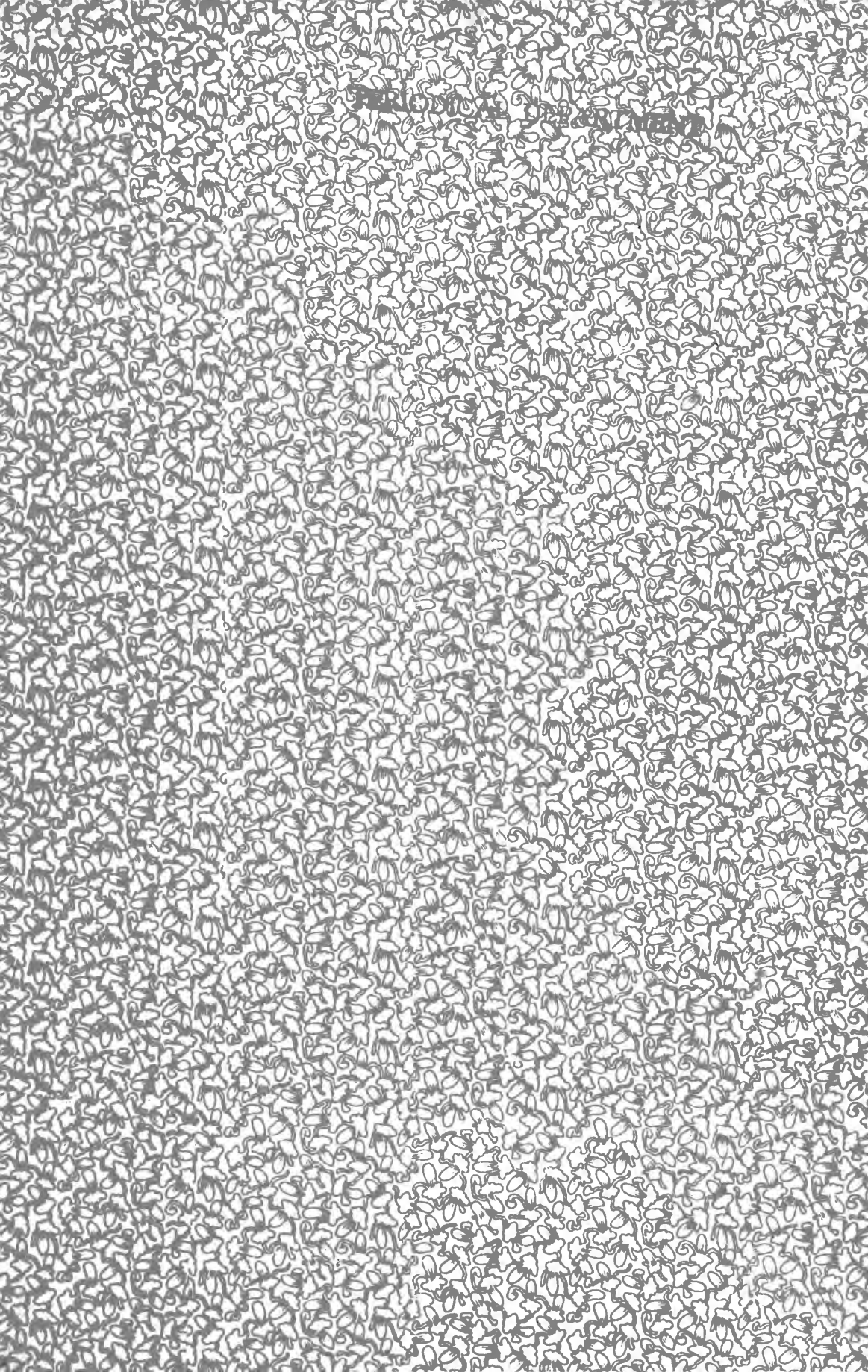


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Pacific Municipalities

AND COUNTIES

A Monthly Review of Municipal Problems and Civic Improvements

OFFICIAL ORGAN OF THE LEAGUE OF CALIFORNIA MUNICIPALITIES



Convention City, 1922

LEADING ARTICLES IN THIS ISSUE

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Information for Conducting the General Municipal Elections to Be Held in All California Cities of the Sixth Class on Monday, April 10, 1922.....	20
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Entered as second-class matter March 22, 1913, at the Post Office at San Francisco, California,
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VOL. XXXVI

TWENTY-FOURTH YEAR

No. 1

EDITORS H. A. MASON and WM. J. LOCKE

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January, 1922

NOTICE—Every city belonging to the League of California Municipalities is entitled to a copy of this magazine for each of its officials without extra charge. If not received kindly notify the Secretary.

A. Carlisle & Co., Printers, San Francisco

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Douglas County, Oregon. This section of the Oregon State Highway system is the Pacific Highway near Myrtle Creek looking south. Umpqua River on the left. This pavement was constructed in 1920, consisting of a 3-inch asphaltic concrete base and a 2-inch asphaltic concrete wearing surface (Warren type).
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THE POWER TO ESTABLISH SET-BACK LINES

By WILLIAM J. LOCKE

Has a city the right to establish set-back lines?

Ten years ago this question would have been answered in the negative by practically every authority on municipal law. Today there is reason to believe that such legislation would be viewed in a different light and, in all probability, be sustained by the courts.

Laws have been enacted which require dwelling houses to have yards in the rear and on the sides, and there is no doubt that such laws are valid. (1921 Statutes, p. 485). They are supported by common sense.

Pure air and sunlight are just as necessary to the health of the community as pure food and pure water. Moreover, it is just as important to have air and light at the front of the house as at the side and rear; and although there is not the same necessity for a front yard because the street is in front, nevertheless, without any building line, one owner who sets his house well back from the street is liable to be boxed in on the sides by adjoining owners putting their houses nearer to the front.

A majority of people everywhere would look with favor on the establishment of set-back lines. This is evidenced by the fact that many owners of new tracts or subdivisions of land now put set-back provisions in their deeds.

Another reason for supporting the establishment of set-back lines in this day and age is the change that has come about in the character of traffic

on our city streets. The slow horse-drawn vehicle has been replaced by the swiftly moving automobile which speeds along at twenty miles an hour and demands the largest possible range of vision at street intersections.

Another benefit of the set-back line lies in the fact that it greatly reduces the danger of conflagration by keeping buildings farther apart. It is a well known fact that the great San Francisco fire was stopped at Van Ness Avenue because of the extraordinary width of that thoroughfare, the flames being unable to jump the gap.

The courts are bound to take cognizance of these things when the validity of the set-back line comes up eventually for judicial sanction. Up to the present time no State Supreme Court has passed on the question squarely, but there is reason to believe that sooner or later the proper kind of an ordinance will receive judicial approval, and the right to establish set-back lines be upheld as a lawful exercise of the police power.

There are two avenues for approaching a solution of the question, one by means of the police power and the other under eminent domain.

According to "Words and Phrases," police power is defined as the name given to that inherent sovereignty which is the right and duty of the government or its agents to exercise, whenever public policy, in a broad sense, demands for the benefit of society at large

regulations to guard its morals, safety, health or order, or to secure in every respect such economic conditions as an advancing civilization of a higher complex character requires.

Police power includes public convenience as well as the public safety, health and morals, and is gradually being broadened to include anything conducive to public welfare and public convenience. (L. R. A. 1917 F, page 1051).

The difference between "eminent domain" and the "police power" lies in the fact that "eminent domain" involves the taking of property and making compensation, whereas "police power" relates to the regulation of the use of property.

In searching through the decisions for cases bearing on this question of establishing set-back lines, an old case was found in which serious consideration was given by the court to the aesthetic features of a proposed building. For that reason it is of more than passing interest. The case is entitled, "Garrett vs. James" and is to be found in Volume 3 of the Atlantic Reports on page 598. It appears that in 1833 the Maryland legislature passed an act authorizing the City of Baltimore to limit the distance buildings could encroach on one of the show streets of that city known as Mount Vernon Place, and the question involved was whether the building complained of was authorized by ordinance. The decision recites the fact that the act of 1833 empowered the mayor and common council of Baltimore to pass ordinances regulating the limits within which it would be lawful to erect steps, porticos, porches or other architectural ornaments to houses fronting on Mount Vernon Place. The first ordinance passed provided: "It shall not be lawful to erect any porticos, steps or any other ornamental structure whatever on Mount Vernon Place, a greater distance into the place than nine feet, measured from the building line." Mt. Vernon Place is 200 feet wide, with 18-foot sidewalks.

The court said, among other things, "In a city noted for its monuments, municipal legislation peculiar to the

neighborhood would seem indispensable. No limitations seem to be imposed upon the preference or taste of the builder, except that in the mode of providing an entrance to his house he shall not erect what will offend the eye, but so construct it that it shall be architecturally an ornament, and thus contribute to enhance the beauty of the neighborhood.

"The testimony is conclusive as to the essential character of the structure and its ornamental effect. A number of architects were examined on both sides to testify as to its aesthetic qualities."

Another interesting case upholding the legality of a set-back line that was established under the power of eminent domain, was decided by the Supreme Court of Connecticut in 1901.

It appears that according to its charter the City of Bridgeport was empowered to establish building lines, and that, on December 1, 1899, the city council established a building line eight feet from the street line. Three persons had been appointed to determine the damages and benefits and they had reported them to be equal; in other words, that the damages were offset by the benefits. No appeal had been taken from their report.

Ten years elapsed without any trouble. Finally one of the property owners, Julia Berger by name, proposed to erect a building between the set-back line and the street.

The matter was taken to the Supreme Court of the State on February 12, 1901, a decision was handed down in which the court expressed itself in the following significant language:

"Where a building line on a certain street was established by a common council under authority of the charter, and no appeal was taken therefrom by any of the property owners, but the same was recognized by the inhabitants as valid for ten years, a presumption arises that the line was properly established.

"Where the Bridgeport city council established a building line, which was acquiesced in by the inhabitants for ten years, a petition for mandamus to compel the building commissioners to

permit the erection of a frame building not in compliance with the same, which merely alleges that the line was illegally established, is insufficient."

Another interesting case, in which the right to establish set-back lines is upheld, was handed down by the Supreme Court of Texas, April 10, 1918. It is entitled, "Halsell et al. vs Ferguson et al.", and is reported in S. W. Rep. Vol. 203, p. 941. Ferguson was the plaintiff and Halsell and others appealed from the decision of the lower Court. The question involved the validity of Section 2 of an ordinance of the City of Dallas which amended the building code of said city. It provided, among other things, the following:

"That whenever any lots are laid off by any plat showing a frontage for said lots on any street or avenue in the residence section of the city, all buildings erected on same shall keep their frontage on said streets or avenues so as to conform to the frontage of lots shown by such plat."

It appears that soon after appellees acquired their lot the appellant Halsell made an effort to secure a permit from the building inspector of the City of Dallas authorizing him to erect a residence upon portions of his said lots 5 and 6 fronting on California Avenue with the rear thereof toward Annex Avenue; that the inspector refused to grant the permit because of the violation of said ordinance. The appellant then appealed to the mayor and city commissioners, who granted the application. Appellees protested against the granting of the permit. In their complaint it was alleged that if the building and improvements were proceeded with, Annex Avenue would virtually be reduced to an alley and appellant's property greatly damaged. Section 161 of the building code of the City of Dallas, adopted March 4, 1913, provided that whenever 50 per cent or more of the lots on any residence street have been improved and the building line of said residences on said street are made permanent, all buildings thereafter erected on adjoining lots shall keep the front building line of any new building at the average distance back from the

front line as those already built so as to conform to the permanent building line observed by 50 per cent of the improved lots.

The principal question considered by the court was as follows:

"1.—Was the enactment of Section 3, Article I. of the charter of Dallas and the passage of section 2 of the ordinance constituting a part of the building code, which provides 'that whenever any lots are laid off by any plat showing a frontage on any street or avenue in the residence section of the city, all buildings erected on same shall keep their frontage thereon so as to conform to the frontage of the lot shown on such plat,' a valid exercise of the police power of the State and said city? The charter and building code were attacked as unconstitutional on the ground that they do not come within the police power. In so far as material here, the ordinance merely requires that buildings conform their frontage to the frontage of lots whenever the lots are so platted as to show a frontage on any street or avenue in the residence section. Since these regulations appear reasonable, and since they promote the general convenience and the public welfare, we cannot regard them as subject to attack on constitutional grounds.

"Coming within the police power, appellants have to submit to these regulations without regard to compensation. For, as announced in 442 Corpus Juris. Vol. 12, page 931, 'since the very foundation of the police power is control of private interests for the public welfare, a statute or ordinance is not rendered unconstitutional by the mere fact that private rights of person or property are subjected to restraint or that loss will result to individuals from its enforcement.' We say yes to question 1 in support of that."

In deciding the case of Halsell et al. vs. Ferguson et al., the Supreme Court of Texas was probably influenced by the reasoning of the U. S. Supreme Court in the case of Eubank vs. City of Richmond, which was submitted on December 2, 1912, six years before. Of all the decisions rendered on this important question the one in the Eubank case

is perhaps the most important for, although the ordinance involved was declared invalid, the particular ground of its invalidity was clearly defined, and the intimation given in no uncertain language that if it were not for the objectionable provision pointed out by the court, the ordinance would have been upheld. The opinion was delivered by Justice McKenna, who said the statute authorized councils of cities and towns, among other things, "to make regulations concerning the building of houses in the city or town, and in their discretion * * * in particular districts, or along particular streets, to prescribe and establish building lines or to require property owners in certain localities or districts to leave a certain percentage of lots free from buildings and to regulate the height of buildings."

By virtue of this act the City Council passed the following ordinance:

"That whenever the owners of two-thirds of the property abutting on any street shall, in writing, request the committee on streets to establish a building line on the side of the square on which their property fronts, the said committee shall establish such line so that the same shall not be less than five feet nor more than thirty feet from the street line."

In pursuance of said ordinance a building line was established in front of the property owned by plaintiff at about fourteen feet from the true line of the street and on a line with the majority of the houses. At the time the ordinance was passed plaintiff had material on the ground for constructing his house. The building conformed to the line with the exception of a bay window which projected about thirty feet over the line. The Supreme Court of the State sustained the statute, saying that "it is neither unreasonable nor unusual, and the validity of such legislation is generally recognized and upheld as an exercise of the police power."

"The ordinance leaves no discretion to the committee on streets as to whether the line shall or shall not be established in a given case, but it is determined by two-thirds of the property owners. In other words, part of the

property owners fronting on the block determine the extent of use that other owners shall make of their lots, and against this restriction they are impotent. This we emphasize. One set of owners determine not only the extent of use but the kind of use which another set of owners may make of their property. In what way is the public safety, convenience or welfare served by conferring such power? The statute and ordinance, while conferring the power on some property holders who virtually control and dispose of the property rights of others, contains no standard by which the power thus given is to be exercised; in other words, the property owners who desire and have the authority to establish the line may do so solely for their own interest. The only discretion which exists in the street committee is in the location of the line between five and thirty feet.

"We are testing the ordinance by its extreme possibilities to show how in its tendencies and instances it enables the convenience or purpose of one set of property owners to control the property right of others. One person having a two-third ownership of a block may have that power against a number having less collective ownership. This is the vice of the ordinance and makes it, we think, an unreasonable exercise of the police power.

"The case requires no further comment. We need not question the power of a city to establish a building line or regulate the structure or height of buildings. Judgment is reversed, and the case remanded for further proceedings."

Two years after the decision by the U. S. Supreme Court in the case of *Eu-bank vs. City of Richmond*, a case was handed down by the Supreme Court of Minnesota on the validity of a zoning ordinance, in which Justice Hallam, in a dissenting opinion of much interest, expressed the belief that the proper kind of an ordinance establishing setback lines would be upheld by the Supreme Court of the United States.

The Minnesota case involved the validity of an ordinance which established residential districts and prohibited the erection of store buildings within said

districts. The Supreme Court of Minnesota declared that provision of the ordinance forbidding the erection of stores to be unconstitutional. Two of the judges dissented. The dissenting opinion was written by Justice Hallam and concurred in by Justice Holt. The learned judge, among other things, said:

"I enter upon the discussion of the question realizing that some of the views which I entertain are opposed to the greater number of decisions.

"We must take judicial notice of some of the things that everybody knows. In every city and every hamlet there are business districts and residential districts, more or less distinct. Business districts spring up and usually follow lines of traction. It is generally recognized that a business district is not the best district for a family home and the man of thrift looks forward to a home outside of the center of business activities. The question is partly aesthetic, but in a far greater measure is purely practical. The principal motives are greater light and air, better moral conditions and better conditions for recreation.

"It is said that this relator has a vested right under the constitution to damage his neighbor's homes by devoting his lot to a use incongruous with the use of surrounding property and that no power can stop him. Has one investor the right to destroy and another no right to be protected?"

Judge Hallam, continuing, said, "in *Eubank vs. Richmond*, 110 Virginia, 749, 67 S. E. 376, 19 Ann. Cas. 186, the court sustained as a proper exercise of the police power an ordinance which required the committee on streets to establish a building line on a street on request of two-thirds of the property owners. This decision was reversed in 226 U. S. 137, 42 R. L. A. (N. S.) Ann. Cas. 1914 B, 192, *but purely on the ground that the ordinance gave to the owners of other property the arbitrary right to control the property of the plaintiff in error.*"

From the opinions handed down by our courts on this important question, it would seem that there is every reason to feel hopeful that the proper kind of a

set-back ordinance would be upheld. It has been pointed out in particular that the location of the line must not be left to the determination of the property owners but must remain with the legislative body of the municipality. It involves an exercise of police power and, being such, it cannot be delegated to private citizens.

There may be some question as to the advisability of providing for notice to the property owners directly concerned, as notice is not deemed necessary in the exercise of police power. However, in the case of *Byrnes vs. Mayor of Riverton*, the Supreme Court of New Jersey (Nov. 13, 1899) declared that an ordinance establishing a street building line encroaching on private lands cannot be sustained if passed without notice, actual or constructive, to the owners of land fronting on such streets.

Recently, two California cities, Alameda and Los Angeles, having faith in the likelihood of judicial support, proposed ordinances for the establishment of set-back lines, both of which are referred to in the following pages, the Alameda ordinance being set forth in full. San Francisco is also preparing a set-back ordinance.

THE PROPOSED ALAMEDA ORDINANCE.

Providing a procedure for establishing set-back lines:

"Be it ordained by the Council of the City of Alameda as follows:

"Section 1. The Council of the City of Alameda is hereby empowered to establish building lines within 'residence districts' in said city, alongside the whole or any portion of any street or other public way, and prohibit the erection, location or maintenance of buildings or other structures within the space between said lines and the street. Said lines shall be known as 'set-back lines' and shall be established in accordance with the procedure set forth in this ordinance. Any set-back lines so established may be changed or modified thereafter by following the same procedure.

"Sec. 2. For the purposes of this ordinance certain words used herein shall be defined as follows:

"The words 'main street' shall mean a street or highway which forms the bound-

dary of a block, as distinguished from a lane or alley which divides a block;

“The word ‘block’ shall mean a plat of land bounded by main streets or partially by a boundary line of the city;

“The words ‘residence district’ shall mean those portions of the city restricted to residences under the ordinances establishing zones or use districts;

“The word ‘structure’ shall include fences, trees and hedges of such height or character as to obscure the vision of motorists, increase the hazard from fire, or shut off the light and air from adjacent property. The plural shall include the singular.

“Sec. 3. Whenever, in its opinion, public interest or convenience require that the buildings or other structures hereafter erected or located in ‘residence districts’ be set back from the street line in order to add to the protection of the city from conflagration, or remove the danger of vehicular collision at street intersections, or prevent the shutting off of light or air from adjoining residences then existing or which may be erected thereafter, the city council shall pass an ordinance to establish the set-back line or lines beyond which all buildings or structures thereafter erected shall be set back from the street. Said ordinance shall name the street or highway referred to, and shall specify the location of the set-back lines proposed to be established. It shall also contain a statement that said ordinance will not go into effect until thirty days after its final passage, and that, in the meantime, any and all persons having any objections to the establishment of such set-back lines may appear before the city council and present their objections.

“At least ten days before said ordinance becomes effective, the city clerk shall post conspicuously one copy of said ordinance headed ‘NOTICE OF SET-BACK LINE,’ in letters not less than one (1) inch in height, in front of each block or portion of block or public way where such set-back lines are proposed to be established, and on the side of the street from which said line is measured.

“One or more set-back lines may be established on one or more streets or por-

tions thereof, in one and the same ordinance and proceeding.

“Sec. 4. After the passage of said ordinance and prior to the time it becomes effective, no building permit shall be issued for the erection or location of any building or structure between the proposed set-back lines and the street, and any permit so issued shall be void.

“Sec. 5. At any time before said ordinance goes into effect, any person having any interest in any land upon which a set-back line is proposed to be established, may file with the city clerk a protest against the same, stating briefly the grounds of objection. All said protests must be in writing and be delivered to the city clerk before said ordinance becomes effective. No other protests shall be considered. At the time of said hearing or any time to which said hearing may be continued, the protestants may appear before the city council and be heard either in person or by counsel, and the city council shall hear and pass upon said protests, and its decision thereon shall be final and conclusive.

“Failure to file or make any protest in the time, form and manner herein provided shall be deemed a waiver of all objections or claims of any kind or character whatsoever, and any protests or objections made after such ordinance becomes effective shall be barred and of no effect.

“Sec. 6. The city council may sustain or overrule any protest or objection. It may repeal said ordinance or pass an amendatory ordinance establishing the proposed set-back lines with such changes or modifications as it may deem proper; provided, however, that if such lines are to be established at a greater distance from the street than was proposed by the original ordinance, all the requirements of notice and hearing which apply to an original ordinance will have to be observed and followed.

“Sec. 7. From and after the taking effect of any ordinance establishing set-back lines, it shall be unlawful for any person, firm or corporation to erect or locate, or to contract for the erection or location of any building or other structure within the space between the street line and any set-back lines so es-

tablished; and the building inspector shall refuse to issue a permit for the construction or location of any building or structure within such space.

"Sec. 8. The city clerk is hereby directed to mark in red ink on the official zone map of said city all set-back lines established under the provisions of this ordinance and show thereon the distance between said lines and the line of the street.

"Sec. 9. Any person, firm or corporation violating any of the provisions of any ordinance establishing any set-back line pursuant to this ordinance, shall be deemed guilty of a misdemeanor, and upon conviction thereof, shall be punishable by a fine of not more than Three Hundred Dollars(\$300) or by imprisonment in the City Jail for a period of not more than three (3) months, or by both such fine and imprisonment. Each such person, firm or corporation shall be deemed guilty of a separate offense for each day during any portion of which any violation of such ordinance is permitted, continued or committed by such person, firm or corporation, and shall be punishable therefor as provided by this ordinance.

"Adopted and passed by the Council of the City of Alameda this.....day of....., 1922.

.....
Presiding Officer of the Council."

SYNOPSIS OF THE LOS ANGELES ORDINANCE

An Ordinance prescribing the method of procedure for establishing set-back lines in the City of Los Angeles, and penalty for the violation of Ordinances establishing such lines.

The mayor and council of the City of Los Angeles do ordain as follows:

Section 1. Provides that proceedings may be initiated by petition filed with the city clerk, designating street and accompanied by a sketch showing proposed lines. Clerk presents petition to council.

Sec. 2. Council, upon petition or its own motion, may determine and order establishment of line.

Sec. 3. Before establishing line, council passes resolution of intention, which must be published once and posted on the street. Resolution shall provide time for hearing objections.

Sec. 4. Prohibits issuance of permit for building outside of line after adoption of resolution of intention.

Sec. 5. Provides that written objections must be filed before hearing, and that decision of council may sustain or deny objections or modify lines.

Sec. 6. Provides that after passage of ordinance establishing line, no building shall be erected between line and street.

Sec. 7. Penal clause.

MICHAEL J. DESMOND

Veteran City Clerk Called by Death

By HARRY G. DENTON
Deputy City Clerk, Sacramento

One of Sacramento's most prominent citizens, Michael J. Desmond, departed this life after only a few hours' illness, having become suddenly stricken on Christmas night, December 25, 1921.

Closing a week of much activity in official duties and felicities of home life, his passing came as a severe shock to all, it having been widely known that on the preceding Friday, he and his wife celebrated their silver wedding anniversary and earlier in the same week he had conducted a double-issue bond election of the city.

He was never known to have been more jubilant in his office work nor

enter the Christmas holidays with greater spirit than this last one, which fact was noticeable by many, and only the more intensified the dark cloud of sorrow that so quickly overshadowed such a large host of friends and his own people.

"Mike" Desmond began his public life as Clerk of the Police Court, which place he filled for two years, beginning on date of January 6, 1896, a term of twenty-six years as City Clerk of the City of Sacramento, which tenure of office terminated as a result of the sad incident. During this long term his veteraney has been recognized far and



Michael J. Desmond

near. It is stated that from the moment he entered upon his duties, in which he so faithfully served more than a quarter-century, each Mayor and the respective boards relied upon him to a large extent in the administration of the city's affairs.

In many matters of minor and major importance to the municipality's best interests he has been known to have been "the power behind the throne." To say that he had most efficiently conducted his department would be language inadequate to express it. Those with whom he came in contact in public work immediately took cognizance of his prodigious powers of memory for names and faces, dates and events. All of these attributes supplemented by the genuineness of the man, his congeniality and friendliness to all with whom he dealt, made for him a round of friends without number. His wit was also enjoyed by all and to have been directly under him in his office was a delight: he seemed to know just how to transform the depressing moments with a good story or stroke of humor.

"A pleasure to show the goods," his habitual remark and motto when serving his fellows, was undoubtedly characteristic of his competency as such official, for he not only showed the goods, but

must have delivered them, having weathered three charters, more than a dozen administrations — trustees, commissioners and councilmen — each and every term Desmond being their only preference. A title possessed but officially unawarded was that of "counsel," his associates realizing his advice on many occasions to represent gold to the taxpayer and wisdom to the executive.

This long relationship to Sacramento's public affairs gained for him a store-house of knowledge and experience invaluable to and irreplaceable by the people whom he served and who continuously approached him for enlightenment on various questions, civic and private. The life of such a one, his self-sacrifice for the city he loved, his loyalty and integrity, preach a voluminous sermon to those who aspire to or stand at the head as public servants. His politics were based on the slogan he so well exemplified, "The public demands service."

Is there another public official who has the record of conducting without fraud or flaw sixty-three municipal elections, including the recent Proportional Representation Election of Councilmen under a managership Charter, which attracted the attention of political students the world over with no small degree of interest? He was known to have said that the election he held of greatest meaning to the future of Sacramento, the one which he took the most delight in handling, was the election on the Filtration Bonds and its subsequent issue, assuring for Sacramento the drink of Shasta's aqua pura and speedily drawing an unprecedented influx of home-seekers and business people to our midst.

Mr. Desmond had been a frequent attendant at the Convention of the League of California Municipalities and at its last annual gathering, gave a demonstration of the Hare System of voting by proportional representation.

He was a Past Exalted Ruler of the Sacramento Lodge of Elks, a member of the Woodmen of the World, Sacramento Council of the Knights of Columbus and Catholic Church. To know him at all was to honor him as a greater lover of his home and family.

PUBLIC SERVICE CORPORATIONS

By ALBERT E. WILSON, A. B., A. M., LL. B.
Member of Chicago Bar and Legal Educator

Excerpt from the La Salle Extension University's Course on American Law and Procedure

The cry of big business for some years past has been, "Let us alone." We are having too much government, they say. The old Jeffersonian maxim, that the best government is that which manifests itself least, is being constantly referred to as the ideal. It is pointed out that this is a country of opportunity, that individual initiative has been characteristic of our citizens and is the cause of our extraordinarily rapid development. Without freedom of action, without absolute non-interference on the part of the government, we could never have accomplished the wonders of progress which make us the marvel of modern times. "Therefore," says big business, "by interfering with us, by exposing us, by trammeling us with vexatious regulations and restraints, you are striking a blow at the cause, the source, the very foundation, of our country's prosperity."

With the fact of whether or not harm is being done as claimed, the lawyer has little to do. If the enforcement of the law brings harm instead of good to the country at large, it then becomes the duty of the legislature to change the law: but so long as the law exists it must be enforced, if for no other reason than to save it from contempt. If big business rested here we would have less concern with what is apparently a matter of legislation, but we are not permitted to leave the matter here. It is further insisted that government has no right to interfere and regulate; that executive and administrative officers are usurping functions which are not conferred by their offices; and that even the legislatures and the body of the people itself are presuming to interfere with property rights, guaranteed by the Constitution and the general law of the land. This contention is the serious one. It is the one that concerns lawyers. So strenuous have been the assaults upon public officers and the various departments generally, and so prompt have been the protests against

each fresh legislative step, that big business has made itself appear to many in the guise of a martyr, persecuted by its enemies under legal forms. It has assumed for itself the role of champion of law and order and has endeavored to make it appear that the forces supposed to represent law, order, and the people of the land, are in reality dangerous demagogues who are breaking down governmental stability.

In view of all this it becomes our duty to see, not who are loudest in these complaints, but to what extent they are right in their contention that the law is being debased. The most, perhaps, is said by the railroads, and in a lesser degree, on account of their smaller size, by all general public service corporations. With the great "industrials" we have at this time nothing to do. They are treated in another part of this work. But as to public service corporations generally, it will be our endeavor at this point to ascertain to what extent their complaints are well founded, and how far government, whether executive, legislative or judicial, has a right to interfere in their affairs; also, why it has this right, and finally whether public service corporations may properly complain.

First of all, as evidenced by its designation, a public service corporation differs essentially from private corporations generally. The community at large has a different interest in this kind of corporation from that in any other, and the government of the community as representative of it, must see that this interest is protected. The governing body of a country such as ours is a body selected by the people at large to preserve and enforce the rights of all, either in the aggregate, as against a foreign nation, or specially, as between its own components. These duties in the broadest sense are to insure to each citizen his personal liberty, personal security, and the security of his property, and in every other legal way to advance the happiness, comfort,

and prosperity of its citizens. Under this latter general designation we find that governmental duties vary greatly.

In thickly settled communities much more regulation is necessary than in rural districts. Either because of lack of means, undesirability, or impracticability, farming communities are left much to themselves by the bodies which govern them. Beyond seeing that highways are maintained, nuisances suppressed, drainage and education promoted, little more is or can be done. But in thickly settled districts, in towns and cities, new duties arise, new opportunities present themselves for increasing the comfort, convenience, and luxuriousness of life. Instead of turnpike roads, paved streets and boulevards are provided. Gas, electric light, telegraph, telephone, street railways, etc., become not only convenient but necessary to city life. Needed by all, it becomes the duty of the government representing all to see that these advantages are provided. To insure proper attendance upon his business each citizen demands and must have urban transportation; for his safety the streets must be lighted; for his health facilities for sewerage and water supply must be ample. In all these things the general public has a deep and abiding interest, and to provide them taxes are imposed and heavy outlays made, which, in different ways, the public is compelled to meet.

As civilization becomes more complicated, the luxuries of today become the necessities of tomorrow. What was too costly for the average citizen a few years back is now easily within his reach. New processes, new inventions are brought out year by year. At first their utility may not be apparent, and the need of them is not general. Hence, it has been the rule that until the general need of the public has shown a certain utility to be indispensable to its prosperity, such a utility has first been within the control, and has been operated for the exclusive profit of an optimistic few who were bold enough to risk their capital to promote it. And this is all as it should be. The government of a community has no right to risk the public money in enterprises which have not as yet shown their practical worth, and for which no general demand is apparent.

Consider the telephone. Forty years ago it was little more than a toy, a comparatively inefficient and insignificant instrument. Today it has become a public utility of the first order. Business cannot proceed without it. The social life of the city is entirely changed by it. It is an absolute necessity. The millions that have been expended in its exploitation and development have made it reliable, efficient, and indispensable. But no city government forty years ago would have been warranted in expending public funds for this development any more than it would be warranted now in developing the aeroplane. And yet who can believe today that a telephone company would be allowed to discontinue its service and deprive a community of the use of the telephone, however much it might feel itself aggrieved? As well allow a water company to close its pumping works and thereby impose discomfort, suffering, and death upon a city; or a gas company to close its mains, thus depriving a city of heat, and expose it to the rigors of winter; or a lighting company to shut off its light and thus facilitate the depredations of criminals. The cases of the telephone company and the water company are the same in principle. When the rights of the public in some special utility have become sufficiently great the right of the individual citizen becomes subservient thereto, or, as the old Latin maxim puts it, "*salus populi est suprema lex.*"

A public service corporation is therefore a corporation that operates a public utility. This utility having become indispensable gives the public a right in it in the same sense that it has a right to breathe the free air of heaven. Governments must preserve and enforce this right, and hence must see that the public service corporation so conducts its business as to give to the public the enjoyment of the utility. The mere fact that the utility happens to be the property of the individual corporation in no way detracts from the right of the public therein. The principle is an old one. It has ever been the right of governments to take for the public benefit the property of individuals under the Latin maxim above quoted. The right of Eminent Domain has always been an attribute of sovereignty. And although in these days

confiscation is abhorred, there can still be no doubt that when the general need is sufficiently great the rights of the individual may entirely disappear. In times of an epidemic rigid quarantines deprive many innocent individuals of even the right of personal liberty; while to stop a conflagration the property of many individuals is ruthlessly destroyed. It is true that in the exercise of the power of Eminent Domain most governments provide that the individual shall receive compensation up to the fair value of the property he is deprived of; but no such law applies in the two instances last cited.

The right to interfere with, regulate, and even acquire, the property of public service corporations cannot be doubted. Ranged as individuals before the law, their rights are no greater than the human owner of property. But being possessed as they are of a public utility, they are not only frequently, but *must* necessarily be constantly, subject to the will of the sovereign state as the representative of the people. The mere fact that they have been allowed to develop and enjoy a public utility through neglect or otherwise of the governing body, gives them no right that may not be seized. Nor does the fact that their ingenuity, genius, and foresight have created a public utility where none theretofore existed, in any way alter the situation. In all cases the fact remains, and the test is: Are the rights of the public in the utility so great as to render it necessary to their welfare? If so, it may be controlled, regulated, even at times confiscated, if the public good so demands.

So much for the existence of the bare right, but its exercise is as a rule most temperate. The corporation is also a member of the community, and its individual rights, as those of other individuals, must be upheld insofar as is consistent with the general right. Hence, regulation, careful and moderate, is always first attempted. Rates are scrutinized. Character of service is looked into. Fairness of treatment is compelled. When the character of the utility is such as to make it dangerous that it should be in other hands, government will take over into its own hands what is obvi-

ously one of its functions. The development by the individual is regarded as being done by mere suffrance until such time as the government recognizes its duties and assumes them. But in all such cases due compensation is made and the corporation which developed the utility is fully paid for its labors.

It has been said that when the government feels that it should serve the public by interfering in the operation of a public utility it should buy the utility, but that it has no right to dictate how the corporation shall conduct its own business and handle its own property. The right to regulate as the lesser demonstration of a greater right must be admitted under the principles above set forth; but there are other reasons why governments have a right to interfere, restrain, and regulate public service corporations, and why the corporation should equitably as well as legally be amenable to control and regulation.

Aside from the public character of the business of a public service corporation, there is a decided difference in the powers it possesses from those enjoyed by a private corporation. This must in the nature of things be so. The fact that they are performing acts which are in a sense governmental, that is, acts which are the natural duties of a government, would necessarily imply that they must have to a certain extent governmental powers. And such is the fact. First and foremost of these powers is that of Eminent Domain. No individual or group of individuals can lawfully exercise this arbitrary and extraordinary power unless given the express right to do so. Only the preponderating welfare of the people generally can ever justify the confiscation of the property of an individual citizen. And no one can safely be allowed to say when and how this power should be exercised, except the people themselves through their governing body.

When, therefore, a government for its own convenience delegates to a corporation this extraordinary power, it must by necessary implication retain in itself the right to exercise a visitatorial power over the corporation so privileged, in order to see that the power is used properly. So it may and does restrict the

field of its operation, the purposes for which it may be used, the duration of the use, etc. It may and does go further than this and imposes on the corporation certain conditions to be met and complied with before the power may be used. For instance, the corporation must invest a certain sum of money; must conduct its business in a certain manner; must pay certain compensation; must not discriminate in its service; must charge reasonable prices for its product. Such conditions accompanying the grant become a contract between the grantor and the corporation, a failure to observe which is usually punished by penalties, such as forfeiture in whole or in part of the rights conferred. Like any other contract, a breach of it by either party gives rise to a right of action for damages, cancellation, specific performance, and the interposition of the writ of injunction in proper cases.

But the fact that the grant and its attendant conditions constitute a contract, and thereby give rights of regulation, etc., by no means excludes the rights of regulation if no conditions are expressed. Most of the conditions mentioned above are implied, if not specifically named. The public nature of the business implies that the public's rights must be considered, and it is the duty of the government to see that they are respected. For instance, a municipality has in most cases the power to see that rates for gas or telephone or street car service, are reasonable. The acceptance of its franchise by a public service corporation is in itself an express agreement to exercise the powers conferred

with due regard for the rights of the citizens of the community it serves, and in which it has the right to do business. The fact that conditions change is something presumed to have been anticipated. A charge of \$1.20 per thousand cubic feet for gas might have been a reasonable and eminently proper charge twenty years ago. But today when the cost of production and distribution, through improved machinery and modern methods, has been vastly decreased, such a rate may be unreasonable. And municipalities now have the ready assistance of the courts in enforcing what is reasonable.

It must be manifest, without further discussion, that governing bodies not only have the right, but that it is their duty, to control and regulate the public service corporations that are enjoying extraordinary rights in their jurisdictions. And it must also be apparent that, far from having cause for complaint, these corporations should in all fairness and honesty observe the express and implied conditions under which they are exercising these extraordinary rights and privileges. The benefits they have obtained on a mere basis of compensation are sufficient to convince the fair-minded of the justice of regulation.

Without the consent and agreement of the people, without a sacrifice by the people of a portion of their inherent prerogatives, these corporations would have no business at all. And it comes with bad grace for the beneficiary to complain of the demand of the donor that it receives, not an adequate return, but merely fair treatment.

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NEW REVENUES FOR CITY GOVERNMENT

Report of Committee on Sources of Revenue, National Municipal League

By LUTHER GULICK, Chairman of the Committee, New York¹

(From the National Municipal Review)

During the last few years average city tax rates have about doubled. The latest figures for the entire United States are for 1919, and show an average city tax rate of \$21.50 a thousand

as compared with \$11.50 in 1909, an increase of 87 per cent. Some computations made recently covering cities in New York State indicate a greater increase during the ten-year period ending in 1920. This rapid increase in the taxation of real estate has produced a vociferous revolt on the part of real estate interests. The chorus of complaint

¹ The other members of the committee are: Dr. Robert Murray Haig, New York; Harrison S. Keeler, Chicago, Ill.; Miss Mable Newcomer, Poughkeepsie, N. Y.; A. C. Pleydell, New York; Prof. Wm. A. Rawles, Bloomington, Ind.

has been swelled by many other groups upon whom the burden of increasing taxes has also fallen. As a result the executive and legislative authorities of our National, State and City governments have a mandate from the voters to call a halt to increasing tax rates and to readjust the tax burden through the development of new sources of revenue.

Ribot, the French finance minister, once said that it was the end of taxation to get the most feathers with the least squawk. We may say that during recent years the harvesting of the feathers has been attended by a growing squawk.

This demand for reduced taxes and for new sources of revenue is nothing new, nor will it disappear as a result of anything we may say or do. It is one of the eternal problems of democracy. It is as much a sign of political vitality as the heart throb is of physical life. The Committee on Sources of Revenue, therefore, has no illusions as to the possibility of "solving this problem," if we may borrow the term from some of the cocksure reformers who are at large. The committee does believe, however, that there are a number of specific matters which do demand special consideration at the present juncture. The committee has therefore made no effort to prepare an encyclopedia of sources of taxation or to finish a standard made-to-order suit of taxation overalls in the thought that it can be fitted to every city. We have sought rather to center attention upon what seems to us to be the six most pressing problems of local taxation.

RELATION TO STATE TAXATION

First is the problem of the relation of State and local taxation. In view of the fact that there cannot be a complete separation of the sources or of the administration of State and local taxation, we believe that the broad outlines of municipal tax and revenue systems must be determined in the light of the National and State tax systems, and that the model tax system of the National Tax Association is satisfactory in this regard, though we wish to urge that in its practical application the needs of the cities be recognized. The tendency

has been for superior political units to seize upon the most available sources of revenue at the expense of the cities. Local government is doing more than five times as much work as State government, and except for the abnormal expenses of the world war, our cities are spending more money than the Federal Government. The most intimate services that Government is rendering to citizens are furnished by the cities. The protection of health, free education, police and fire protection, streets, sewers, water supply and the many other necessities of modern urban life are, primarily, city services. The Committee on Sources of Revenue wishes therefore to urge that the extensive and legitimate needs of the cities be given adequate recognition in the distribution of revenues collected by the States through the personal and business income taxes provided by the model tax system. (Mr. A. C. Pleydell does not agree with the committee, as he feels the extension of income tax legislation is undesirable.)

BUSINESS AND LICENSE TAXES

The second problem we wish to call to your attention is that of the business, occupational and license taxes. During the last few years, cities in their search for more revenues, particularly in the South and West, have adopted many sorts of special business and license taxes. The Boston Committee on New Sources of Revenue has even gone so far as to urge a municipal retail sales tax on the theory that such a tax is more direct than the tax on real estate.

This committee believes these cities are on the wrong track. We believe the Boston proposition is utterly wrong. Undoubtedly (1) genuine regulatory licenses, (2) charges which compensate the city for special services rendered, (3) fees for privileges and (4) fines should be increased to meet the new costs and the shrunken value of the dollar, but the levying of so-called business license taxes on every profession or type of activity that can be found in the dictionary, especially with the types of gradation commonly in use, is undesirable. A much fairer method is to adopt the personal and business income taxes recommended in the model tax system.

SPECIAL ASSESSMENTS

Our next point deals with special assessments. This committee has made a careful study of the subject of special assessments during the past two years. We find that a great many cities are still financing their permanent public improvements by bond issues and taxation instead of by special assessments against the land that is directly benefited by the improvements. We find also that very few of the cities that have adopted the policy of special assessments are following a consistent and businesslike policy. We believe in the policy of special assessments. A much larger share of the cost of public improvements should be borne by the property benefited than is now the rule with a corresponding reduction of the share to be financed by general taxation. The committee has prepared a report of some detail on the subject of special assessment administration which will be printed in the near future as a supplement to the *National Municipal Review*.

SIGNBOARDS

There is no need of urging upon members of the League the levying of taxes upon signboards. There is now ample justification and legal precedent for levying taxes upon signboards, not merely for the revenue which such taxes would produce, but also for the control which such measures may give over outdoor advertising which, when utterly unregulated, is dangerous, offensive and unsightly. Signboard taxation should recognize that it is not so much the size of the sign that governs its tax-paying ability, as its strategic location, and that signboard taxation should therefore bear some relation to the earning power of the sign. This can be done either (1) by determining rates according to fixed zones, as in Baltimore, (2) by regulating rates to the unit foot value of the street or (3) by taking a certain percentage of the rental value of the sign. Such tax provisions should, of course, be coupled with directly regulatory features and the prohibition of certain types of signs.

TAX LIMITS

We do not believe in tax limits. With

very few exceptions, tax limits have not worked satisfactorily. In most cases they have not actually limited taxation. Tax limits have encouraged unsound bonding. Tax limits are contrary to principles of municipal home rule. We believe that cities should be given an opportunity of deciding for themselves what services they need and how much they are willing to spend for them. We believe the only effective method of securing a restriction of tax levies without hampering municipal services, encouraging unsound bonding and robbing cities of their rights of self-determination is: first, through the establishment of a comprehensive and binding budget system which will bring to the attention of the voters the costs of the services which are demanded of the government and the methods by which these costs are to be met; second, the enactment of a complete bonding act which will prevent unsound bonding; and third, the wide distribution among the electorate of the direct tax burden as is provided by the model tax system. (Mr. Harrison S. Keeler and Mr. William A. Rawles do not agree with the committee, as they feel that in certain instances practical considerations make it necessary to retain tax limits.)

THE ASSESSMENT OF PROPERTY FOR TAXATION

The views of this committee on the subject of the assessment of property for taxation have already appeared in published form in the supplement of the *National Municipal Review* prepared by Mr. Lawson Purdy. We believe the essentials of a good municipal assessment system are:

- (1) Assessment at 100 per cent of market value.
- (2) Tax maps showing the metes and bounds of all property within the limits of the taxing district.
- (3) The block and lot system of indexing property holdings and office records.
- (4) The adoption of the unit foot system.
- (5) The adoption of an approved depth rule, corner influence rule, alley influence rule, plottage rule, and such other minor rules as are necessary.

(6) The preparation and adoption of a standard building classification with unit factors of building value.

(7) The persistent collection of all information bearing on property values and its preservation in readily accessible and permanent form.

(8) The preparation of a land value map covering the entire city.

(9) The publication of the tentative assessment-roll where practicable.

(10) The recognition that the work

of assessment is a year-round task and is therefore to be administered by a single permanent appointive official whose work should be subject to revision on complaint by a quasi-judicial board of review.

These essentials are drawn from the working methods of the most successful assessors, and their adoption in any community should bring about not only a higher assessment; but at the same time a fairer assessment.

GOVERNMENT SEEKS TO SOLVE HEAVY MOTOR TRUCK PROBLEM

The proper regulation of unusually large motor trucks because of their wear and tear to the Nation's highways, or of restricting their use to certain roads designed to accommodate them, is suggested for consideration in the annual report of the Bureau of Public Roads, United States Department of Agriculture. The bureau, under whose supervision Federal-aid funds totaling \$200,000,000 have been expended on highways costing \$467,000,000 during the past five fiscal years, asserts that the problem of the heavy motor truck is one of prime importance, pressing each year with more weight for solution, which, while not to be hastily solved, ultimately must be met squarely and disposed of.

"The reduced unit cost of operation which follows from the transportation of commodities in greater bulk tends to promote the development and use of vehicles of the largest capacity which can be used to advantage," the bureau says. "It is desirable to gain this advantage, if it is actually an advantage, but it is this point which is seriously in doubt. The doubt arises from the fact that the roads which are adequate for traffic of automobiles and light trucks are entirely unable to support the weight of the heavier trucks, and to build roads which will carry the heavy vehicles will greatly increase the costs of construction.

"Whether the operation of the heavier vehicles shall be restricted to a class of roads especially designed to accommodate them, or whether all roads shall be strengthened to provide for unre-

stricted use, or whether the third alternate shall be adopted and the operation of the heavier trucks prohibited, will depend upon the relation which is found to exist between reduced operating cost and increased cost of construction.

"The situation presents an economic problem of the first importance which is not to be hastily solved, but which must nevertheless be met and disposed of. To do so demands a careful weighing of the effects of the several possible solutions with a view to the selection of that one which, in the long run, will serve best to accomplish the one desirable end—the improvement of our means of transportation.

"The prime importance of an accurate knowledge of the weights of the vehicles which are to use the roads constructed is well illustrated by the experience of one of the States in which the Bureau of Public Roads made an extensive investigation during the past year.

"Ten years ago this State set out upon the construction of a system of roads. The roads were designed and built to meet all the reasonable demands of the traffic which then could be foreseen. In the brief time which has elapsed roads have been constructed which penetrate to all parts of the State, some of which, however, have been seriously damaged by heavy motor vehicles, the use of which could not have been foreseen when the roads were constructed.

"Our investigation reveals that in this case the return from the roads in

the reduction in the cost of transportation and in the development of the territory they traverse has undoubtedly compensated the loss resulting from their destruction; but it is not by any means certain that the outcome will be so fortunate under other conditions.

"For the security of the enormous investment which is being made by the States and Federal Government it is imperative that this question of the duty which the roads will be called upon to render in the future shall be definitely determined. A clearer conception of the relative economy of heavy and light vehicles can be gained by careful study."

The bureau at the present time is engaged in conducting investigations designed to determine accurately the load-carrying capabilities of various kinds of roads, of various thicknesses upon different kinds of subsoils—a study which will yield valuable information in meeting the problems outlined above. These experiments are being conducted in various sections of the country, in cooperation with State and highway departments, and at the bureau's experiment stations. Another problem presenting itself for solution and under investigation is the variance of the classes of traffic to be served in different localities. Pointing out that the demand for good roads comes from all classes of highway users, the bureau asserts:

"The demand of the farmer is for roads from the shipping points and agricultural centers to the surrounding producing areas—farm-to-market-roads.

The manufacturer and city merchant ask principally for roads which will facilitate the transportation of raw materials and manufactured commodities which flow to and from the cities. The tourist and that large section of our urban population whose direct interest in the rural roads is due to the opportunities for pleasurable recreation which they afford, are particularly concerned in the development of a system of smooth, hard-surfaced roads connecting the cities and points of natural interest. Thus, from the several classes the demand is for roads to meet their particular requirements, while all unite in an appreciation of the need for development of a system of roads which shall serve as a complete supplement to the railroads in the event of war.

"All these are proper demands, which must be accommodated as rapidly as the resources and means of construction will permit. Fortunately the more important requirements of each group may be met by the improvement of a relatively small part of our mileage of public roads."

Approved projects for Federal aid in road-building, up to the end of the past fiscal year, the bureau states, cover 35,402 miles for the five-year period ending June 30 last, and involve the expenditure of \$587,000,000, of which nearly \$248,000,000 represents the Federal Government's contribution. The total mileage of completed Federal aid projects during the past fiscal year was 3,809, and the average cost per mile \$13,035.

Information for Conducting General Municipal Elections

To be Held in

All California Cities of the Sixth Class

On

Monday, April 10, 1922

(See Chapter 477, Statutes of 1919)

January 1. New registration commences. Secs. 1094-1120-1121 Pol. C. Only those registered since January 1, 1922, can vote at this election.

LIST OF SUPPLIES TO BE PROCURED BY CLERK

1.—The Ballots, which shall be printed on tinted paper with water-marked design. They shall be kept secret, from all persons not engaged in their preparation, until the

day of election. The printing, perforating, padding and numbering shall be substantially the same, as nearly as may be, as the ballots used in regular State and County elections. They shall be put up in pads of ten or some multiple of ten, and the clerk shall keep a record of the number printed.

2.—The original affidavits of registration or carbon copies thereof, from the County Clerk.

3.—Four copies of the index affidavits of registration for each polling place.

4.—A sufficient number of voting booths arranged so that each voter will be properly screened from observation.

5.—Ballot Boxes, stamps, ink pads, voting lists, roster, instruction cards, tally lists, returns, envelopes, and all other necessary supplies.

Not earlier than February 9, nor later than March 21, 1922, the City Clerk must publish the following notice in one or more newspapers published and circulated within the city:

NOTICE OF ELECTION

Notice is hereby given that a General Municipal Election will be held in the..... of..... on Monday, the 10th day of April, 1922, for the following offices:

1—.....Trustees for the full term of four years.

2—.....Trustees for the short term of two years.

3—Clerk.

4—Treasurer.

Also, the following propositions will be submitted at said election:

(Here give brief synopsis of same, if any)

There will be.....voting precincts for the purpose of holding said election, consisting of a consolidation of the regular election precincts established for holding the last general State and County election as follows:

Consolidated Voting Precinct "A" comprising State and County precincts numbers....., and.....and....., and the voting place thereof shall be at.....

Consolidated Voting Precinct "B" comprising State and County precincts numbers....., and.....and....., and the voting place thereof shall be at.....

The polls will be open between the hours of.....o'clock.....M. and.....o'clock P. M.

.....Clerk

Dated.....Calif.....1922.

NOTES

Election Laws—See Section 2, Chapter 477, Statutes 1919; also Sections 854 and 856 of the Municipal Corporation Act.

Propositions—Strike out paragraph relating to propositions in case there are no propositions.

Precincts—Any number of regular precincts may be consolidated for this election. They may be given a number or letter.

Polls open eight hours—The board of trustees must fix the election hours, but they must not be less than eight consecutive hours. See Section 15, Chapter 477, Statutes of 1919.

Between Feb. 9 to March 11—Publish Notice of Election. Circulate nomination papers. Appoint election officers.

March 10—Last day to register.

March 21, noon—Last day to file nomination papers.

RESOLUTION TO ADVERTISE FOR ELECTION OFFICERS

Resolved, by the Board of Trustees of the.....of.....that the.....Clerk be and he is hereby instructed to advertise for election officers to conduct the general municipal election which is to be held in said..... on Monday, April 12, 1922, by publishing such advertisement twice in the....., a weekly newspaper of general circulation published and circulated in said..... Said advertisement shall be substantially in the following form:

ELECTION OFFICERS WANTED

Election officers are wanted to conduct the general municipal election which is to be held in the.....of.....on Monday, April 10, 1922. Preference will be given for ability and previous experience.

File your application in writing with the.....Clerk, giving your present occupation and previous experience in work of this kind.

By order of the Board of Trustees.

.....Clerk.

Dated March 1, 1922.

NOTE—The Board of Trustees must either advertise for election officers, or appoint them from the list of registered applicants on file with the County Clerk; provided, however, each officer must be an elector and resident of the consolidated voting precinct for which he or she is appointed. The time and number of publications of such advertisements are discretionary with the Board of Trustees. See Sec. 4, Chapter 447, Statutes of 1919.

RESOLUTION APPOINTING ELECTION OFFICERS

Resolved, that the election officers to conduct the general municipal election to be held in the.....of....., on Monday, April 10, 1922, be and they are hereby appointed and designated as follows:

For Consolidated Election Precinct "A"

Inspector (1).....

Judges (2).....and.....

Clerks (2).....and.....

For Consolidated Election Precinct "B"

Inspector (1).....

Judges (2).....and.....

Clerks (2).....and.....

Each election officer must be an elector and a resident of the consolidated voting precinct for which he or she is appointed. The compensation for each election officer is hereby fixed at.....dollars for his or her services in said election.

NOTE—March 11 is the last day for appointing election officers and designating polling places.

NOMINATION PAPER

We, the undersigned electors of the.....
of.....hereby nominate.....for the office of
.....of said city.
(Specify full term or short term)

Name Occupation Date Residence

AFFIDAVIT OF NOMINEE

State of California,

County of..... ss.

.....being duly sworn, deposes and says
that he is the above named nominee for the
office of....., and that he will accept said
office in the event of his election.

Subscribed and sworn to before me this
.....day of.....1922.

Notary Public in and for the County of
.....State of California.

(SEAL)

NOTES

Verification deputies not required. Any per-
son may circulate the nomination paper.

Number of signers required. Each nomination
paper must be signed by not less than five nor
more than ten electors.

Time for filing. Nomination papers must be
filed not earlier than February 9, nor later than
noon March 21, 1922.

File With the City Clerk,

Who may sign.

No elector shall sign more than one paper for
the same office, but each seat on the board of
trustees is deemed a separate office.

Be sure and specify whether term is a full
term or a short term.

March 21 to April 10—Publish twice before
the day of election, the following notice:

NOMINEES FOR PUBLIC OFFICE

Notice is hereby given that the following
persons have been nominated for the offices
hereinafter mentioned to be filled at the
general municipal election to be held in the
.....of.....on Monday, the 10th day of
April, 1922:

For Trustees (For the full term)

For Trustees (For the short term)

For Clerk

For Treasurer

Also the following propositions are to be
voted on at said election, to wit:

(Here give a brief synopsis of the propo-
sitions, if any.)

Dated.....1922.

.....Clerk.

NOTE.—The names must be set forth in alpha-
betical order.

Strike out the paragraph relating to proposi-
tions in case there are no propositions.

April 10—Election day. Polls must be
open eight consecutive hours.

April 17—Board of Trustees must meet
and canvass returns.

RESOLUTION DECLARING RESULT OF
ELECTION

Whereas, a general municipal election was
held and conducted in the.....of....., on
Monday, the 10th day of April, 1922, as re-
quired by law,

And Whereas, it appears that notice of
said election was duly and legally given, that
voting precincts were properly established,
that election officers were appointed and
election supplies furnished, and that in all
respects said election was held and con-
ducted and the votes cast thereat received
and canvassed, and the returns thereof
made and declared in time, form and manner
as required by the general laws of the State
governing elections in cities of the fifth and
sixth class,

And Whereas, the board of trustees of
said.....met at the Council chamber of the
board on Monday, the 17th day of April,
1922, to canvass the returns of said election
and install the newly elected officers, as a
result of which the board finds that the
number of votes cast, the names of the per-
sons voted for, and other matters required
by law, to be as hereinafter stated; now
therefore,

Be It Resolved as follows:

That said regular municipal election was
held and conducted in the.....of....., on
Monday, the 10th of April, 1922, in time,
form and manner as required by law;

That there were.....voting precincts
established for the purpose of holding said
election, consisting of a consolidation of the
regular election precincts established for
holding general State and County elections
as follows:

"Consolidated Voting Precinct 'A'", com-
prising State and County precincts numbers
.....and.....;

"Consolidated Voting Precinct 'B'", com-
prising State and County precincts numbers
.....and.....;

That the whole number of votes cast in
said.....was.....;

That the names of the persons voted for,
the offices for which they were voted, the
number of votes given in each precinct to
each of said persons, together with the
whole number of votes which they received
in the entire....., are as follows:

VOTES RECEIVED

Names of persons voted for	Office voted for	Pct. A	Pct. B	Pct. C	Pct. D	Total Vote
.....	Trustee full term					
.....	"					
.....	"					
.....	"					
.....	"					
Scatter- ing	"					
.....	Trustee short term					
.....	"					
.....	"					
.....	"					
Scatter- ing	"					
.....	Clerk					
.....	"					
.....	"					
.....	"					
.....	Treasurer					
.....	"					
.....	"					
.....	"					

That the propositions voted upon, the number of votes given in each precinct, and in the whole city, for and against the same, are as follows:

Resolved, therefore, that at said general municipal election.....was elected to the office of TRUSTEE of the.....of.....for the FULL TERM of four years;

Also, that.....was elected to the office of TRUSTEE of said.....for the FULL TERM of four years;

.....

Also, that.....was elected to the office of TRUSTEE of said.....for the SHORT TERM of two years;

Also, that.....was elected to the office of TRUSTEE of said.....for the SHORT TERM of two years;

.....

Also, that.....was elected to the office of CLERK of said.....for the term of four years;

Also, that.....was elected to the office of TREASURER of said.....for the term of four years;

Resolved further, that as a result of said election the following propositions were adopted:

The Clerk shall enter on the records of the Board a statement of the result of the election showing (1) The whole number of votes cast in said.....; (2) The names of the persons voted for, and the propositions voted upon; (3) The office which each person was voted for; (4) The number of votes given at each precinct to each of such persons, and for and against each of such propositions; and (5) The number of votes given in said.....to each of such persons, and for and against each of such propositions voted upon.

The Clerk shall immediately make and deliver to each of such persons elected a certificate of election, signed by him and duly authenticated; he shall also impose the constitutional oath of office and have them subscribe thereto, whereupon they shall be inducted into the respective offices to which they have been elected.

NOTE—The old board must meet on April 17, 1922, to canvass the returns. Thereupon insert the figures in this resolution and adopt it. The newly elected officials should then take their seats.

A STATEMENT OF THE PRESENT STATUS OF IMHOFF SEWAGE TREATMENT TANK PATENTS

The Imhoff sewage tank patents formerly owned by Dr. Karl Imhoff, Essen, Germany, were introduced in the United States in 1910, the earliest installation in this country being three municipal sewage disposal plants at Atlanta, Ga., from the designs of Hering and Fuller, of New York City. No charge was made to Atlanta by Dr. Imhoff for royalties. In May, 1911, Dr. Imhoff arranged for United States and Canadian representation, with the Pacific Flush Tank Company, 4241 East Ravenswood avenue, Chicago, Ill., through its president, S. Fisher Miller, Singer Building, 149

Broadway, New York City, as commercial representatives.

When the United States entered the war, Dr. Imhoff became an alien enemy, and the Pacific Flush Tank Company, under the provisions of the "Trading with the Enemy Act" immediately reported to the United States government the existence of the patents and full information regarding them, reported moneys on deposit in this country to the credit of Dr. Imhoff in their possession, and gave a full list of towns that had constructed the Imhoff tanks and that had not paid the royalty fees. The Federal Trade Commission for the United

States Government, after careful investigation into the patents, desiring to serve the American public in the same manner as before, gave an exclusive license, No. 7, dated December 17, 1917, to the Pacific Flush Tank Company, to continue licensing towns for Imhoff sewage tanks in behalf of the United States Government, on payment of the same royalty fees. By-yearly, moneys collected were reported and sent to the Alien Enemy Custodian, less collection expenses.

On March 1, 1919, the Alien Property Custodian, acting under the provisions of the "Trading with the Enemy Act," and the amendments thereto, and executive orders and proclamations issued in pursuance thereof, seized these German patents, and on March 21, 1919, they were sold, together with all claims and damages, for profits and damages recoverable at law or in equity for the past infringement of said patents, to the Chemical Foundation, Inc. This company was organized to foster the development and advancement of chemistry and allied sciences and industries in useful arts and manufactures in the United States, and in furtherance of such objects and purposes, to acquire by purchase from the Alien Property Custodian and others, patents and other property, and to hold such property so acquired in a fiduciary capacity for the Americanization of such industries as may be affected thereby, and for the exclusion or elimination of alien interests hostile or detrimental to the said industries in the United States.

The Chemical Foundation, Inc., purchased these Imhoff patents together with a large number of other patents, trade marks, copyrights, etc., and will continue for the life of the Imhoff sewage tank patents to issue licenses for the use of Imhoff sewage tanks, through the Pacific Flush Tank Co. (with which it has made a contract to act as exclusive agent or representative), on payment of the same royalty fees as heretofore charged.

The title of these patents having now permanently passed from a foreign interest to an all-American interest, it is assumed that there will be less hesitancy on the part of municipalities in paying the moderate royalty fees charged for the use of these patents.—From the *American City* of December, 1921.



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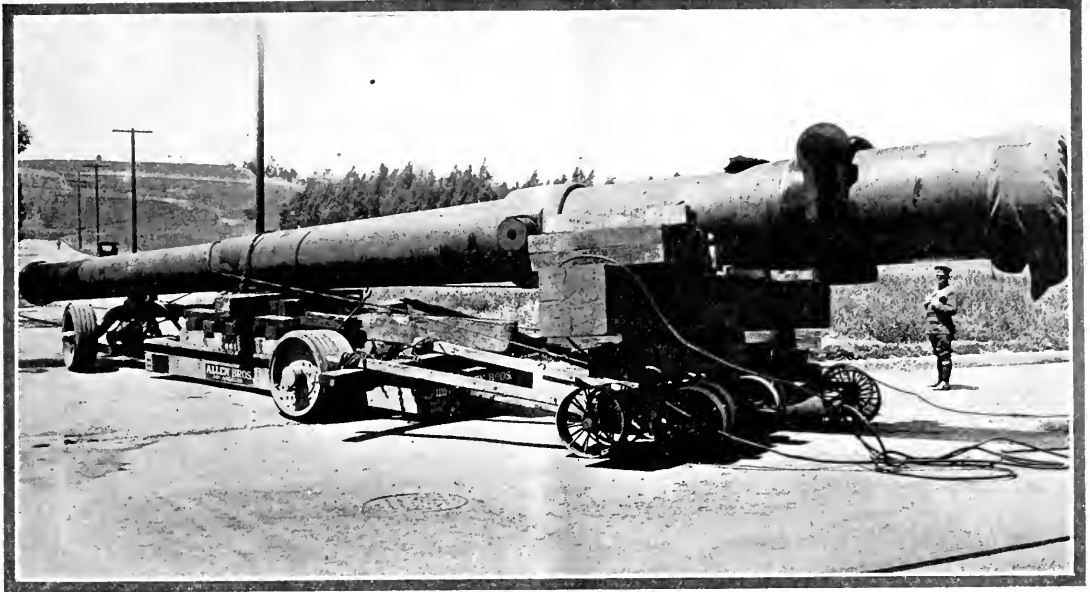
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San Pedro, California. Seventy-three-ton gun en route to Fort MacArthur over Twenty-sixth Street. Pavement laid in 1916 on an adobe sub-base, consisting of a three-inch asphaltic concrete base and a 1½-inch asphaltic concrete surface (Warren type). Photograph taken in May, 1920

ASPHALTIC CONCRETE ON ADOBE SUB-BASE STANDS THE TEST

Three Seventy-three-Ton Warriors Were Transported Over Twenty-sixth Street in San Pedro Without Affecting the 4½-inch Asphaltic Concrete Pavements

The batteries of Fort MacArthur were augmented in May, 1920, by the addition of three seventy-three-ton fourteen-inch guns. It was necessary in transporting these guns to the fort to haul them the full length of Twenty-sixth street in San Pedro.

Fortunately, Twenty-sixth street had been paved in 1916 with a durable asphaltic concrete pavement consisting of a 3-inch asphaltic concrete base and a 1½-inch asphaltic concrete surface (Warren type) capable of carrying such heavy loads.

These big guns were mounted on carriages and hauled to the fort. Steel-rimmed wheels which support the breech, the heaviest portion of the load, made

not the slightest impression on the pavement.

Storm-drains, sanitary sewers and gas mains were installed just previous to paving this street. The adobe sub-base was practically honeycombed with ditches. The trenches were filled and compacted as well as possible, then the asphaltic concrete pavement was laid directly on this far from ideal base.

Notwithstanding the conditions under which this pavement was laid, it supported these huge guns as well as the heavy traffic of the last five years, remaining smooth, true to grade and in excellent condition. No money has been spent on this asphaltic concrete pavement for maintenance.

FRESNO COUNTY AWARDS CONTRACT FOR EIGHT MILES OF ASPHALTIC CONCRETE

Fresno County, California, on November 25th, made another award for as-

phaltic concrete construction. This was for 8.04 miles of sixteen-foot pavement on Whites Bridge Avenue from Madera Avenue to El Dorado Avenue, to consist of a 3½-inch asphaltic concrete base and 1½-inch asphaltic concrete surface.

3690 MILES OF ASPHALT STREET PAVING LAID IN THE UNITED STATES THIS YEAR

That American cities are making tremendous strides in street paving is indicated in reports from city engineers to The Asphalt Association, which show that over 270,000,000 square feet, or 1750 miles, of asphaltic pavement, thirty feet wide, will be laid on city streets this year. Reports from State Highway Departments indicate that 207,000,000

square feet will be laid on the State highways, while the area laid in counties and other districts will bring the total to 585,000,000 square feet, or 3690 miles, of asphalt pavements, thirty feet wide.

This will be an increase of 35 per cent over the area paved in 1920, and is sufficient to build an asphalt road thirty feet wide from Augusta, Maine, to San Francisco, California, and then some.

Santa Barbara County awarded a contract on December 5th for the construction of 28.5 miles of fifteen-foot highway with 5-inch asphaltic concrete laid in two courses, Topeka type.

Asphaltic concrete was the only type specified for this work, the low bid being as follows:

Price per square foot, paving and grading, \$.2099; price per mile, paving and grading, \$16,624.08; total price, \$497,989.41.

This is for the paving of the Lompoc Road from Surf to Buellton.

COST OF A TYPHOID EPIDEMIC

The importance of a safe city water supply is brought to our attention with a fresh emphasis by reason of a severe typhoid fever epidemic that broke out in Salem, Ohio, in October. More than 850 cases of typhoid fever and approximately 50 consequential deaths were reported during the course of the epidemic. The Ohio State Department of Public Health attributes the cause of the outbreak to "sewage entering the water supply system through leaks in a tile pipe line" and estimates the cost of the epidemic at \$450,000.

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"Would you convict a man on circumstantial evidence?" they asked the lady juror. "I would," she replied. "I've convicted my husband that way dozens of times."—*Detroit Free Press*.

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When Writing to Advertisers

TITLES OF NEW ORDINANCES RECEIVED

- Acquisition of Property.**—An ordinance providing for the acquisition of certain property for street extension purposes. Oakland.
- Appropriation.**—An ordinance appropriating money to furnish a barge to the Department of Public Works. Oakland.
- Appropriation.**—An ordinance appropriating money to purchase a motor. Oakland.
- Appropriation.**—An ordinance appropriating money to purchase an automobile for use of the Electrical Department. Oakland.
- Appropriation.**—An ordinance for the purpose of relieving the unemployment situation; appropriating money for the employment of needy persons on certain street work. Oakland.
- Bill Posting.**—An amendatory ordinance regulating licensing of bill boards and bill posting. San Bruno, No. 60.
- Bids.**—An ordinance authorizing the Board of Public Works to advertise for bids, award and enter into a contract for furnishing 20 municipal street railway cars and authorizing progressive payments to be made therefor. San Francisco, No. 5527 N. S.
- Building Code.**—An ordinance amendatory thereof, relating to plans, specifications and inspection for concrete construction. Long Beach, No. C-31.
- Buildings Used as Public Garages.**—An amendatory ordinance relating to permits therefor. Long Beach, No. C-30.
- Curb Lines.**—An ordinance establishing curb lines on certain streets. Montebello, No. 50.
- Compensation.**—An amendatory ordinance relating to the compensation to be paid the Chief Deputy Assessor. Oakland.
- Compensation.**—An amendatory ordinance relating to the compensation to be paid the Pile Driver Foreman. Oakland.
- Election.**—An ordinance calling a special election, same to be consolidated with the general election to be held January 16, 1922. Marysville, No. 204.
- Election.**—An ordinance calling a special election. Hollister, No. 91.
- Franchise.**—An ordinance granting to J. O. Phillips a franchise to operate an electrical distribution system within certain designated territory. Riverside County, No. 145.
- Franchise.**—An ordinance granting to the Pacific Gas and Electric Company a franchise to operate an electrical distribution system. Marin County, No. 183.
- Grade.**—A special ordinance establishing the grade of the alley in block 65. Santa Monica, No. 139 (Street Series).
- License.**—An amendatory ordinance relating to the licensing of certain businesses, trades, and professions. Stockton, No. 755.

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- Names**.—An ordinance establishing the names of certain public courts, alleys or places, and establishing the grade thereon. Venice, No. 852.
- Pound**.—An ordinance providing for a city pound. Oakland.
- Parking**.—An ordinance regulating parking in unincorporated villages. Yolo County, No. 109.
- Plans**.—An ordinance ordering plans and specifications for an oral-deaf school. San Francisco, No. 5525, N. S.
- Plans**.—An ordinance ordering plans and specifications for a drill tower. San Francisco, No. 5526 N. S.
- Prohibition Enforcement**.—An ordinance providing for prohibition enforcement. Napa.
- Prohibition Enforcement**.—An ordinance providing for prohibition enforcement. Monterey County, No. 351.
- Prohibition Enforcement**.—An ordinance providing for prohibition enforcement. Modoc County, No. 68.
- Rubbish**.—An ordinance prohibiting the dumping of rubbish along the county road. Napa County, No. 117.
- Repeal**.—An ordinance repealing 81 ordinances. Kern County, No. 181.
- Sewer**.—A special ordinance ordering the construction of a sanitary sewer. Santa Monica, No. 140 (Street Series).
- Stages**.—An ordinance requiring motor vehicles driven for hire to stop before crossing a railroad track. Tehama County, No. 66.
- Street Work**.—An ordinance ordering the performance of certain street work, approving and adopting specification therefor, and authorizing the Board of Public Works to enter into contract for doing the same. San Francisco, No. 5524 N. S.
- Street Opening**.—An ordinance ordering the opening and extending of Lime Avenue. Long Beach, No. C-28.
- Street Opening**.—An ordinance ordering the opening and extending of Myrtle Avenue. Long Beach, No. C-28.
- Stages**.—An ordinance requiring all stages or automobiles carrying passengers for hire, and school busses carrying school children, to stop before crossing any railroad. Kern County, No. 182.
- Sidewalk**.—An amendatory ordinance fixing the location of curb lines and establishing the width of sidewalks. Stockton, No. 756.
- Stages**.—An ordinance regulating stages and other vehicles operated for hire. Mesa City, Arizona, No. 105.
- Taxes**.—An amendatory ordinance making certain provisions for the assessment, levy and collection of taxes. Berkeley.
- Traffic**.—An ordinance regulating the operation and traffic of all within the Town of Goldfield, Esmeralda County, Nevada. No. 42.
- Zoning**.—An ordinance excepting certain portions of the city of Oakland from the single family residence district created and established by Ordinance No. 806 N. S. Oakland.
- Zoning**.—An amendment to zoning ordinance. San Francisco, No. ——— N. S.
- Zoning**.—An amendment to zoning ordinance. Berkeley, No. ——— N. S.

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AND COUNTIES

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OFFICIAL ORGAN OF THE LEAGUE OF CALIFORNIA MUNICIPALITIES



Municipal Boathouse at Oakland, California.

LEADING ARTICLES IN THIS ISSUE

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Publicly Owned and Operated Power Plants, By Hon. R. T. Jeffery.....	47

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Entered as second-class matter March 22, 1913, at the Post Office at San Francisco, California,
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Editorial and Business Office Fifth Floor, Pacific Building, San Francisco

ADVERTISING RATES ON APPLICATION

Address all Communications to "PACIFIC MUNICIPALITIES," Pacific Building
San Francisco, California

February, 1922

NOTICE—Every city belonging to the League of California Municipalities is entitled to a copy of this magazine for each of its officials without extra charge. If not received kindly notify the Secretary.

A. Carlisle & Co., Printers, San Francisco

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Pierce County, Washington. Section of the Pacific Highway between the C. M. & ST. P. R. R. crossing and the Kings County Line, which is being surfaced with $1\frac{1}{2}$ inches of asphaltic concrete. The original pavement consisted of six inches of hydraulic concrete, and was laid in the latter part of 1913. Photographed October, 1921.

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MUNICIPAL ENTERPRISE

Address of the HON. LOUIS BARTLETT, Mayor of Berkeley and President of the League of California Municipalities, at the Recent Meeting of the League of the Southwest, in Riverside.

Mr. Bartlett—Mr. Chairman, Ladies and Gentlemen of the convention:

I have been struck with the scientific spirit in which the problems of the Colorado River have been discussed in this meeting. The value of the scientific method is one which cannot be over-estimated. I have not always been of that opinion; but I remember that about twenty years ago on a bright moonlight night I was on the Capitoline Hill in Rome, in company with a charming California girl, who had something of a reputation for austerity. We had been dining together, and on coming out into the air she was taken with the hiccough. She tried all the old-time remedies—drinking a glass of water, holding her breath, but all to no avail. Finally, with my most scientific manner, I said to her, "You know the hiccough is nothing else than a convulsion of the diaphragm, usually caused by its being unduly distended. If you will permit me to compress your diaphragm, I think we can accomplish a cure." It did. It was a wonderful cure; but not too wonderful—it had to be repeated several times during the evening.

Times have changed. The scientific method in those days was applied to finding a cure for the hiccough; but, now, if I am to judge from what my scientific friends say, is principally occupied with finding a method of producing the hiccough.

The problems of the Colorado River are problems of scientific interest. They are scientific problems, not only of engineering, but also of economics and politics. They must be solved by careful and sound work, not sentiment.

The topic which has been assigned to me this morning is "Municipal Enterprise," and if you will indulge me for a moment I will go back with you a few years to see what municipal enterprise has meant in the past, and what government functions, or perhaps more properly speaking, municipal functions have been.

You remember, that in the days of Romeo and Juliet there were two police forces, one for the Montagues and the other for the Capulets. The cities had not then assumed the duty of giving police protection. Nowadays, no one questions the propriety of the city's assuming the duty of giving police protection.

When I was a boy, and lived in Alameda, our house drained into a cesspool. We did not have a sewer system. It was not then universally regarded as a proper municipal enterprise. And we find, as we look at the various functions which our municipal governments have assumed, that they have been gradually acquired. The old cities did not have all of them, but added them one at a time, until now the universally accepted pattern of city government is entirely different from that of a hundred or even

fifty years ago. It is only as new functions are added that questions as to their propriety are raised.

Take, for example, the water supply of our cities. Originally cities were small and sparsely settled. The need was not great enough to require water works for cities. In the year 1800 there were only sixteen in the United States, all privately owned. The public had not then realized that a large group can be served better if this function be taken over by the cities. It is interesting to note, however, that of those sixteen cities, fifteen at present are in public, or municipal ownership.

By 1899 there were 3,326 water works in the United States, and of that number 63 per cent were in municipal ownership.

By 1915, of 204 cities with over 30,000 population, 155 of them, or 75 per cent, had municipally owned water-supply systems.

Today, the San Francisco bay region, in California, is the only large community in the United States where the water supply is not municipally owned and controlled.

The tendency has been to bring the water supply of American cities under public control. It has been a strong tendency. Has it been justified? That is the question. Wherever we see that a tendency is persistent we know that there are sound reasons for it—and in this case the reasons are simple.

A special United States census made in 1912 to investigate this question, found that in cities of 30,000 and over the construction cost of water works when built by private enterprise was 36 per cent higher than when built by cities. These figures were based on the same unit of water made available for use. This census also found—and this is very interesting in view of what we hear constantly, that cities cannot operate economically—it found that the maintenance cost of private plants was 74 per cent higher than the maintenance cost of municipal plants—all this reduced to a common unit.

During the war and after it was the practically unanimous experience of municipally owned water-supply plants that the rates remained stationary, in

spite of the rising cost of almost everything else. It was also the practically unanimous experience that privately owned water companies raised their rates during the same period.

I come from Berkeley, California. There the water question has been a very acute one, and our experience during the war and after was that we had three raises of rates—and the end is not yet, for we now have before the Railroad Commission the application of the water company for a fourth raise in rates.

These are very significant facts. On the one hand, we find that the municipally owned water supplies are able, in spite of war conditions, and notwithstanding the difficulties that arise after a war, with practical unanimity, to maintain their pre-war rates. On the other hand, we find that the private companies, also with practical unanimity, raise their rates. Is it any wonder, therefore, that the people of the country find it to their advantage to confer the power of supplying water upon their municipalities when they have carried out their trusts with such eminent success?

Turning now to the question of power, we find that in 1902 there were 3,620 lighting plants in the United States. Of that number 21 per cent were in public ownership.

By 1907 the use of public ownership had increased to about 21 per cent, and by 1912 to 30 per cent, out of a total of 5,221 plants.

This also is significant. It is explained by Secretary of Agriculture Houston in his 1916 report in which he says that the average cost of construction per horsepower by private companies was \$301 and under public ownership \$138; less than half the construction charge under private ownership and management. This merely substantiates what was found in the investigation made by the United States census authorities in 1912, where they found that the average cost per kilowatt under private management was shown by the capital charges of the companies as \$440, whereas the average charge per kilowatt under public ownership was \$209—less than half of the cost of private plants.

Another very important question to consider is service. Is the public able to get power? The figures of the Government on that are rather interesting and instructive. They found, in this same census that in 173 cities, with an aggregate population of 1,158,143, supplied by municipal or public enterprise, the ratio of consumers to population was 1 to 11. They also found that in the city of Brooklyn, New York, served by private enterprise, the ratio was 1 to 110. Of course Brooklyn is an extreme case. Nevertheless these figures show that the claim made that the public enterprise does not serve the public cannot be substantiated by the actual facts, as appears from the United States census of 1912. The average, under municipal enterprise, was 1 to 11, as against 1 to 110 in the city of Brooklyn served by a private company. That ratio does not obtain here in California where we are getting very much better service than the people of Brooklyn are. But it does show that the public enterprise is able to take care of the needs of the people, and actually does so.

At the present time the method of supplying utilities is quite different from that of 100 years ago; it is quite different from that of a decade ago. Originally the management was entirely in the hands of those who provided the capital without public control of any kind. But this did not work; it gave rise to great discrimination and unfairness in rates and in overcapitalization; and so rate regulation by the cities came in. But the method failed and we adopted the plan of having a State regulatory body (the Railroad Commission in California) fix the rates and authorize the capital expenditures. That system has been a great improvement, not only in California but pretty generally throughout the United States. It has failed, however, in one vital point. It does not furnish the service cheaply. Then there is the further forward step of municipal ownership, and one of its chief merits is that it has actually succeeded in practically all cases in supplying water and power at a lower price.

I need only call attention to few illustrations in California. Yesterday you heard the marvelous achievements of

Ontario, Canada. But take Alameda, for example. It has its little plant for the production of electricity and owns its distributing system. It was established about thirty-five years ago. I take a great deal of pride in it, because my father was one of the forward-looking citizens who had to do with its installation. By reason of the fact that it is now very expensive to generate power from oil, the city of Alameda buys its power from one of the companies that distribute power in that immediate area. It pays the current rate for power at wholesale, and yet distributes power to the people of Alameda at from 20 to 25 per cent less than is being paid by the customers of the same company across the estuary in Oakland.

In the city of Palo Alto, which has had municipal ownership for some time, we find that power is sold for about seven cents, as against twenty cents when the power was sold by a private company. I will not tell you anything about Los Angeles, because Mr. Scattergood will be here, and will give you definite data much better than I can. But I will say, that in Los Angeles they are getting power for about two-thirds of what we pay—and naturally industries cannot come to Berkeley in competition with Los Angeles with its cheap power and cheap water.

We must all agree—there is no possibility of a disagreement about it, for the figures are here—that it is the universal experience that publicly owned supplies are furnishing water and power more cheaply.

I heard it said a year ago in an argument before the League of California Municipalities, that for every successful publicly owned system there was another one that was a failure. That was an imputation which the League of Municipalities thought should be very thoroughly sifted. And we did so. We took a census of every city in the State of California that had public ownership, and found that with one exception, the small town of Gilroy, every city was better off under public ownership than it had been under private ownership.

You will ask me then, why is it that companies like the Pacific Gas & Electric and the Southern California Edison

are growing so rapidly, and producing an increasingly large amount of power—are really growing more rapidly than the public utilities owned by the cities.

Let us sit down a minute and find out how it is done. If a California city like Berkeley wants to acquire its own power, what must we do? We must have an election to determine whether to go in with our neighbors, Oakland, Alameda and Richmond, into a utility district large enough to finance a good sized project. And until the last session of the Legislature all the cities had to vote favorably at the *same* time. It was a very simple matter for the utility companies to mass their forces and beat it in one city of the group and cause the whole plan to fail. But suppose that the district is formed. Then it must go to the public and say, "We need so many millions for our project," and must vote bonds by a two-thirds vote, and if it is not carried by a two-thirds vote the thing fails again. It is a pretty poor political organization that can't get at least one-third of the votes. No one will accuse the public utility companies of having such a poor political organization as that. All of us from California are aware of the fact that our public utilities have always had political organizations. For a long while we had the Southern Pacific; that was knocked out, and now we have the light and power companies. I know they deny it. I met a gentleman on the street, right after the passage of the King tax bill, who maintained most vigorously—although the public utility officials had appeared in Sacramento and had spent a big sack for their publicity—that the public utilities were absolutely out of politics. I was rather surprised at that; but I understood him better on the following morning when the police department picked him up and sent him back to the home for the feeble minded at Glen Ellen, from which he had escaped.

In contrast with the complicated method of creating a public utility district, and then voting bonds, what is the procedure of the private companies when they wish to undertake a development? It is a very simple and very logical one. Suppose the Pacific Gas & Electric wants to bring in power from

the Pitt River. It goes to the Railroad Commission and says, "We can develop so many horsepower on the Pitt River, which we can sell to consumers at such and such a price—which is more or less reasonable—and we have this market for this power." In other words, they show a project where they can develop power, and a market for that power; and they obtain the permission of the Railroad Commission for the issuance of the necessary stocks and bonds. There is no election and no litigation. Nobody gets out his hammer to prevent them from going ahead with their development. They merely go to a bond house, offer their stocks and bonds for sale, they are sold, and the project is built.

That is a logical and simple plan. Why shouldn't that simple plan be applied to the cities? The cities have shown by their experience that they are able to build their projects more cheaply and sell their water and power more cheaply than the private companies can and they are financially able to build them when they have surmounted the hurdles which the law has imposed upon them. For instance, the Marin Municipal Water District on the shores of San Francisco Bay. There are thirteen small villages, with a population of about fifteen thousand people among them. They were not getting water. There was plenty on Mount Tamalpais, one of the best-watered regions in California, but the local water companies did not furnish it. I know something about that matter because I lived on the side of Mount Tamalpais for a couple of years, right under the reservoir, and was about the only man in Mill Valley able to get water into the second story of his house, or to get water at all during most of the day. Then the municipalities got together and organized a municipal water district. They had to vote by a two-thirds majority to issue their bonds. And what happened? The utility companies around the bay, and in the State of California generally, combined to prevent the sale of those bonds, even after the Supreme Court had twice decided favorably for the district; and finally a big contracting firm in Kansas City took over the bonds and built the plant, and now in Marin County there

is water in plenty for generations to come and a million gallons a day are being sold to the sugar refineries across the bay.

What can be done to help the small community, the irrigation or reclamation district and the farm center that they all may have the advantage of cheap light and power and water, available to large units like Los Angeles and the city of San Francisco?

I am taking the liberty of discussing this here because, while we are planning a procedure in California, through a constitutional amendment to be voted on next November, the States of Arizona and Nevada, New Mexico and Utah, will be able to profit by our help in the development of water and power from the Colorado River and in building of irrigation canals.

In California we have a movement on foot to give all the advantages in organization and financing, which the private companies now have, to the smallest city under California's Water and Power Act, which will be voted on next November. Briefly stated, that act provides a State commission of five, selected by the Governor. This commission corresponds to the Ontario Power Commission, which was so well described to you yesterday. If my city of Berkeley wants power or water, the City Council, by ordinance, authorizes the execution of a contract with this State Water and Power Commission. We agree to take the water, or the power, and pay for it at cost, including interest, amortization, operating expenses, reserve for losses, etc., to be determined under the act exactly as Ontario does, as Mr. Jeffery explained so admirably yesterday. The Water and Power Commission may say to Berkeley, "You are not large enough to justify you in building a project way over in the Sierras and bringing power across the San Joaquin Valley." But that need not bother us. We go to the city of Oakland, just across the street, and it says: "We will be glad to get our water and power at cost." So they make the same kind of a contract with the State Water and Power Commission. And so with Alameda, and with Richmond. Pretty soon the State Water and Power Commission has enough contracts

in its hands to guarantee a market for a large block of water or power. The first condition which the Railroad Commission requires from public utilities is then met. They have a market. But they have a better market than the public utilities companies have, because the public utility companies merely estimate that they will be able to get rid of their power at such and such a price. They have no actual contracts for it. But the cities, which never yet have repudiated their obligations, have entered into a firm contract with the State Water and Power Commission for the use of this water or power. Then the State Water and Power Commission says: "Here on one hand we have a market for water or power, and here a project that will supply them at such and such a price." Then they do exactly what the private utility companies do. The latter go to the Railroad Commission and ask that the facts be examined to see whether the project is feasible, and whether there is a market. Similarly the State Water and Power Commission goes to the State Finance Board, consisting of the Governor, the comptroller, the chairman of the State Water and Power Commission (who is also a member of the committee), the chairman of the Board of Control and the State treasurer—and this board studies the matter, exactly as the Railroad Commission does in the case of a private company; it sees that the market is assured by valid contracts and that the project is sound from an engineering and financial standpoint. Then the State Finance Board says: "That is a good proposition. We will authorize you to sell enough State bonds to build the project." Then there is a perfect parity between the method now used by the private companies and the public bodies. The only difference is that in the one case the Railroad Commission is charged with the duty of ascertaining the facts, while in the other the State Finance Committee is charged with that duty. The act was not framed so as to put the Water and Power Commission under the Railroad Commission, because the Railroad Commission's business is primarily in fixing rates. Under this Water and Power Commission Act the

Railroad Commission can not fix the rates. They are automatically fixed at cost in precisely the same way as in Ontario. So, as I said, the State Finance Board says, "Yes, this is a feasible project. You have your firm market: you are authorized to issue and sell so many bonds." At that moment, and not before, the commission is authorized to sell bonds for building the project. These bonds bear the low rate of interest that the State bonds bear.

The limit to which the State can go in issuing these bonds is five hundred million dollars. I have heard it said, and it has been said and repeated over and over again *ad nauseum* that we are plastering the State with a debt of five hundred millions. But are we? I remember, not so very long ago, when the Railroad Commission was first organized, that these public utility companies that are now hollering their heads off about this act, had fifty-seven varieties of objections against the Railroad Commission Act. It was socialistic: it was taking away the rights of private property, and so forth and so forth; it was all the things they say about California's Water and Power Act, and then some. The Pacific Gas & Electric Company, just before the act went into effect, executed a bond mortgage to the extent of one hundred and fifty million dollars though its total assets were much less. But you didn't hear anybody going up and down the State saying that the Pacific Gas & Electric Company had mortgaged the industries of the people of the State of California for one hundred and fifty million dollars. Why not? Well, because they hadn't. They could not issue the bonds without the permission of the Railroad Commission. Nothing happened. When they needed the money, they went to the Railroad Commission, and the Railroad Commission said: "Sure, you can sell bonds in such an amount for such and such a project." And they issued and sold to finance a particular project and the interest was taken care of by the revenue earned by the company. And that is exactly what will happen under this California Water and Power Act. Bonds will be issued only as needed for approved projects, in no event in greater sums than five

hundred million dollars, and will be repaid, principal and interest, out of the rates collected for the water and power produced.

Our plan is the same as the financing of private companies but we have this very great advantage: that under the State plan the money can be borrowed at State rates. Under the other plan, the private plan, the money must be borrowed at a rate which is approximately 50 per cent higher. The State is able to borrow money around 4 to 5 per cent—of course the market fluctuates from day to day—but while the State can borrow money for 6 per cent per annum or less, the public utilities are paying from 8 to 10 per cent.

What does that mean in the figuring of rates? The cost of your water or your power is made up of two elements. Approximately half of the cost is interest on the money needed to install the public utility and the other half is operating expense. So it stands to reason that if half of your cost can be reduced a half or a third by cheaper money, then the State can furnish water or power for much less than the private companies.

That is one of several reasons why the private utility companies must charge more, and considerably more, than the cities do for the same service.

But that is not the only one. Take the matter of overhead. We have always heard, and we hear it shouted from the housetops, "What we want is good, sound business management! And only the private utilities can provide it." But let us consider the item of overhead. The head of the Pacific Gas & Electric Company gets \$30,000 a year. The first vice-president gets \$25,000 a year. The second vice-president or treasurer—he who handles the finances of the company—gets \$22,500. Those are nice salaries, and we haven't got down to the operating engineers yet. What does Los Angeles do, with its municipally owned plant? In Los Angeles, the head of the water department, the man who built the Los Angeles aqueduct, and that runs the whole thing—there is no better engineer—only gets \$15,000. That's the overhead. (Applause.)

Last night I tried to find out from an officer of the Southern California Edi-

son Company what their overhead was. I said, "What does the president of the company get?" "I will not tell you." I said, "What does Mr. Edgerton—formerly head of the Railroad Commission—now on special service with the Southern California Edison Company, and also getting \$12,000 a year from the East Bay Water Company—what does Mr. Edgerton get?" "I will not tell you." "What are you getting?" "I will not tell you." So evidently it is none of my business. (Laughter.)

I have heard it said, time and time again, by public utility managers, that the public utility company is doing *your* work. That it is *your* agent just as the city government is, and that you must trust the public utility company to do *your* work for you, because it is doing it well. I must say that it seems to me rather singular that my own agent, responsible to me, and doing my work, and taking my money, refuses to tell me what he is taking out of the till and putting in his own pocket. But that, after all, is only an aside. The real point is this, that the privately owned utility company has a very large overhead in comparison with the municipally owned plant, and as a rule refuses to let the public know how large it is. I had considerable difficulty in getting that information I have given you. I had to ask the Railroad Commission three times before the figures I have given you were disclosed by the companies. But the fact is—and I challenge any public utility company to deny it—that their overhead and their salaries are much greater than in the publicly owned public utility service.

The private public utility companies are run at profit, or for a profit. Under the Ontario plan, and under the California Water and Power Act, the public utilities will be run at cost. What does that mean? Figures are not, ordinarily, very interesting, but nevertheless sometimes we can get a little interest out of them. I have been looking over the annual reports of several of the public utilities of California, and I find that they are financed so as to provide interest on their bonds, dividends on their stock, and a surplus which in the cases

- I have examined amounts to approxi-

mately 5 per cent more. I was reading this morning in the 1920 report of the Southern California Edison Company that the affairs of the company were so prosperous that the net surplus was 35 per cent higher than the year before. And bear in mind that during that year—unless the report forgot to say anything about it—the company brought in no new source of power. There is no other place for surplus to come from than from the rates the consumers pay. They say they need the surplus because if they haven't it they cannot go out and borrow money. That may be true. It may be true that they cannot get capital without earning a very considerable amount more than the cost of the service. But that only goes to substantiate what I said a moment ago, that the municipally owned plants that do not need to make a surplus have a great advantage, and hence they are able to serve water and power at very much lower cost to the consumer.

What do they do with this surplus? They must earn it every year; otherwise they can't keep on selling more stocks and bonds. They have to show a yearly surplus. It is not as if they could earn a surplus in one year, and, like a bear, feed on their fat in the next season; they must show a surplus every year. This, in fact, is one of the greatest sources of extravagance and abuse in the whole public utility business.

I was talking with one of the Railroad Commissioners a few days ago and I said to him that I had noticed that the earnings of the head of the Great Western Power Company, which were originally fifty-seven thousand dollars a year, had been reduced by the Railroad Commission to thirty thousand. "Well," he said, "we can't reduce the salary. All we can do is to say that we will only allow a certain reasonable amount for such salary in the expenses of the company. If it chooses to pay more than that amount out of its surplus, we can't stop it." So I don't know whether the head of that company is still getting the \$57,000 or not. I don't know anything about that.

A Voice—It is none of your business.

The Speaker—Just so; it is none of my business. But that indicates the sort

of thing that can be done with the surplus.

Some of the things that are being done with surpluses might be explained to you. There is the matter of advertising. I remember there was a series of ads in our papers up around San Francisco Bay that must have cost thousands—about quarter-page ads—in all the papers. And what did they say? Why, that a water supply has to be well and carefully watched; there is Bill Jones over there at the dam—if he were not a most careful and efficient man our whole system might be ruined. Why is money spent that way? One of the reasons is this. These public utilities feel that they want to have the papers of the country with them, and go on the assumption that if they give them a large amount of money for advertising they will receive favorable comment in the newspapers. I know, and you know, that newspaper proprietors are just like everybody else. Some of them are honest and independent, and that sort of thing does not affect them a particle. I am glad to say that my own experience shows this to be true of by far the larger number of newspapers in the State. But there are the others. When some of the others of them get those ads, they know what they are expected to do, and they proceed to deliver the goods. I know that from experience in my own town.

I want to ask you, is that a legitimate use to make of the money you pay for water and for power? In Berkeley the water company actually spends 1 per cent of its entire gross revenue in publicity. Why should we who buy water pay for that sort of thing? A city does not have to do that. A city is able to take that saving of 1 per cent and turn it back to the consumers in lower rates.

There is another item which is rather interesting, and that is the cost of construction of the plants. As I said to you a while ago, it costs more per horsepower on the average throughout the United States for the private than the municipal plants. I know of one reason why it is so. It was stated at the Santa Monica convention of the League of California Municipalities by Profes-

sor Cottrell of Stanford that he had been making a study of public opinion in the United States for a number of years, and that he found from his studies that 98 per cent of the newspaper comment on city affairs was hostile and 2 per cent favorable. I am going to ask you, is it possible in this day and age for 98 per cent of the newspaper criticism of municipal enterprise to be hostile, and still allow that municipal utility to get away with graft or extravagance in construction? It cannot be done. Certainly not in California.

The fact is, and the figures will show, that the municipal utility projects in California at all events have been constructed without suspicion of graft and without well-founded charges of inefficiency at any point. You will find that the standard of public morality, and the standards of honesty and efficiency of public officials have risen just as fast as the standards of morality and efficiency have risen in the community, and you will find it has grown fully as fast as the standards of honesty and efficiency in the privately owned public utilities. There are some of us, in fact, who would like very much to be able to say that some privately-owned public utilities are as efficiently managed as the municipal plants.

I wish to say one thing more on this question. A great cry has been raised that you must not let the cities build and operate water and power utilities because politics will get into them.

I remember one occasion, when I was a little boy—I was a member of a large family, there were ten of us—all great sleepyheads in the mornings. It was hard for mother to get us up. She would have to go the rounds every morning and pull us out of bed. I remember one Sunday morning when she waked me up. She kissed me and said, "Louis, this is Sunday morning. You were not a very good boy last week, but you can be better. Make up your mind to try to be a good boy this next week. Just lift up your heart to God"—and then, as she rushed out the door, she added: "And don't forget to put your dirty clothes in the wash." These public utility company officials •

are touring the State telling of their great virtues—and they are lifting up their hearts to God—but how many of them are putting their dirty clothes in the wash? (Laughter and applause.)

Talking about politics, I think it was John R. Commons, the noted economist, who made a report to the Government in which he said in substance: "If the cities own their own water works or power plants, more or less politics may creep into the management; but if the cities don't, the politics are there just the same, for utility companies are always trying to elect and keep in office those who are favorable to their particular interests."

I don't like to refer to my own peculiar experiences, but up in my section it has been emphatically announced that in politics the public utilities are "neutral." Well, during the war we learned a new meaning for the word neutral. The neutral was the goat; but since the war neutrals are those that are trying to make the other fellow the goat. The day after being elected president of the East Bay Water Company, Mr. Edgerton said to me, "You had a mistaken idea in thinking the water company fought your election. The water company was neutral. But of course you could hardly expect those who are working for the water company, knowing what you have tried to do to the company, to boost for you!" So, during my campaign the utility companies got "neutraler" and "neutraler." But I'd hate to say what their personnel tried to do for me!

Politics! This is a fine slur to cast at municipal ownership! In Los Angeles, where they have "politics," power costs two-thirds what it does in those parts of town where there are no "politics" and the private companies supply it. In Palo Alto where they have "politics," power costs seven-twentieths of what it cost before. In Alameda, where all the city can do is to buy power from a power company and then distribute it, that city by reason of its "politics" is able to distribute the same power, from the same source, at 20 to 25 per cent less to its customers than the private company charges for the same service across the street.

I say to you, ladies and gentlemen, if that be politics, let's have more of that kind of politics! (Applause.)

We have heard a lot about taxation. We have heard a lot about a "plaster"—of five hundred millions dollars that is going to be put upon the State to raise our taxes. Well, Los Angeles has a "plaster"—a big bond issue. But Los Angeles city taxes will be diminished this year by fifteen cents on the dollar because of excess revenue earned by reason of that very "plaster." And not only that, but by reason of that "plaster" the people have saved, in lower rates, about two and a half million dollars! Los Angeles has saved the consumers two and a half million dollars in power rates because of municipal ownership; this is really saving two and a half million dollars in taxes, in addition to the fifteen cents that appears in the tax rate. A "rate" for water or power is a "tax" just as much as any item that appears on a tax bill.

We have been told that if this California Water and Power Act be enacted, "the State of California will be taxed to death. We are taxed to death now!"

Well, what will happen? The act puts the faith and credit of the State of California behind these bonds. The State of California guarantees the payment of the interest and the payment of the principal, but how? Each project as developed must sell water and power at cost. That cost includes interest on those bonds; it includes amortization; it includes replacements, cost of operation, reserve for losses, repairs—everything which a utility to be properly run must include in its costs, and the law makes it obligatory that the rates shall be fixed so as to cover *all* the costs. Where do the extra taxes come in? If we pay all the costs out of the rates, we will not have to add anything to the State tax rate. The reason this provision was put in the law was because we wanted the people to have the advantage of the cheapest money rate available, and the cheapest money rate can be had where the credit is soundest. The State said: We will fix the rate so as to take care of all this cost, but if we don't we will take it

out of the taxes, temporarily, and the taxes will be repaid from the charges later.

I will ask you again to look at the parallel between the public utilities privately owned and the State or city owned utilities. Suppose, for example, that the Pitt River project, which is being built by the Pacific Gas & Electric Company, should fail to produce revenue enough to pay the cost of the system; that is, interest, sinking fund, cost of operation, etc. What happens? Does the company go broke. No. It goes to the Railroad Commission and says, "We made a mistake in our estimates. These rates should be so and so to give us a surplus." And it gets them if it makes the right showing. What will happen with the State? If the State-owned project makes a mistake the rates are shoved up or down, as Mr. Jeffery explained yesterday, to balance the cost.

These are the reasons why we are in favor of municipal enterprise. We believe municipal enterprise is capable of giving water and power to the people more economically and much better than the private companies can. And we are now asking citizens of California to remove the shackles that bind the cities, and put them on a parity with the public utility companies. We are not asking for more than this. We do not propose to develop all the power in the State. The Railroad Commission and the privately owned companies are on record as saying that in the next ten years a billion and a half to two billion dollars will be necessary in order to keep pace with the growing demand for power. The only part of this development that is possible under this act is about one-fourth to one-third of it, and we think it is only right that the smallest irrigation district, the smallest town in the State of California, should be able to go to this State commission and say, "We want water and power at cost. Give it to us." And then to have that State commission unite that little body with a large co-operative group, and give it water and power at a low price. There is nothing

that will make so much for the prosperity of the State as that.

Co-operation, and co-operation in accordance with the well-designed, well-considered safe plan that has made such a success in Ontario, will bring to California untold wealth, and will do more to help it than any single thing in the history of California since the discovery of gold.

My talk has been germane to the problem of the Colorado River Basin, because through this Water & Power Act the cities of California will be able to co-operate and provide in large part the capital that will be necessary for the development of the valleys of Arizona and Nevada, the opening of their mines, and the doing of all the things in those States, which an abundance of water and power will permit.

We are not here saying that we want the State of California to develop the Colorado River, not at all. But we are here to say that we want the Colorado River developed and we know, as Secretary Fall said yesterday, that there is but one agency that can build the dams and that is the Federal Government. We want the Federal Government to do it, and when the time comes to bring the water from the river on to the lands, and bring the power across the valleys and mountains to the different points where it will be used, and where it will make prosperity for all the people in the great Southwest, then we say to you gentlemen, will you let us help? We have the legal machinery which will permit us to come to your aid, and give you cheaper water and power than you could otherwise get, and help ourselves at the same time. We will co-operate with you because it will help you and it will help us. The power should be developed by the cities, because municipal ownership is honest, it is efficient, and gives the people better service at less cost.

We are all one great community. We want the great Southwest to stand together and develop as a whole, and the cities of California want to do their share in making that possible. (Applause.)

PUBLICLY OWNED AND OPERATED POWER PLANTS

Address of the Hon. R. T. Jeffery at the Meeting of the League of the Southwest, Riverside, Cal., December 10, 1921.

Mr. Chairman, Ladies and Gentlemen: I shall not attempt to express this morning the honor that has been shown to the Province of Ontario in asking Sir Adam Beck, Chairman of the Hydro-Electric Power Commission of that Province, to attend the meeting of your League here and address you on the subject to which he has given the best part of the past twenty years of his life, a subject in which he is so much interested and which means so much and has meant so much to the people of our Province.

We speak the same language as you do, we look somewhat the same, we have the same ideals, the same ideas, and we have the same problems to meet that you do. And we have our elections—we had one the other day in which the Government was overthrown and a new party is in by a majority of two, not very big, but a working majority. I came as a delegate across the line at the North, a line extending from the Atlantic to the Pacific, a distance of three thousand miles, and guarded by no other hand than the hand of fellowship and good will. (Applause.) I think if some of the delegates at Washington to-day knew something about that line and how it is guarded, it might help them in their deliberations.

It is with a feeling of fellowship and good will that I bring you this message. You have your great problem as we have ours. Yours is, to be sure, somewhat more complicated and complex than ours, ours being simply a power problem and yours being a three-fold problem—flood control, irrigation and power development; and I believe that is the order of importance of these three phases of your situation. I am not here, as an outsider, to tell you how you should proceed with your undertaking. I am not here to tell you that you should proceed with the development of the Colorado River as a private enterprise; nor am I here to tell you that you should proceed with the proposition as a public undertaking. But I am merely here at the invitation of your League to tell you what Ontario has done in the development of a somewhat similar proposition and what success we have had.

It is rather a difficult problem to outline so great a scheme and tell you what success we have had in the limited time at my disposal. But, if what I may be able to tell you of the result of our experience helps you to decide what course to take in solving your own great problem, we, your neighbors across the line, shall be pleased indeed to have been able to render you this service.

Eighteen years ago private interests were in full control of practically all of the water powers of the Province of Ontario, and, about

that time, the thinking men of the Province, that is, those men interested in the welfare of the Province and with a broader vision than the men who just interest themselves with the things of to-day not looking to the future, realized that if our Province, which, we claim, is the manufacturing center for the Dominion of Canada, was to maintain its position as the premier manufacturing Province for the Dominion of Canada, it was necessary to obtain a cheap and adequate source of power supply to supersede coal, in which commodity our Province is sadly lacking. We have no coal in Ontario and no oil; all the coal for domestic and commercial use must be shipped in from the far east or the far west of the Dominion, or be imported across this line from the United States, which is the main source for all of our bituminous and anthracite coal supply. With this object in view, many meetings were held throughout the Province by various public bodies with the result that the Provincial Government was asked by the municipalities interested for authority to undertake the development, transmission and distribution of electrical power as a municipal undertaking; and in 1903 the Provincial Government passed legislation authorizing the municipalities to borrow money and to undertake, individually and jointly, to generate, transmit and deliver power, and, also, to appoint a commission of three or five men to operate and control the system.

A commission of four members was appointed to investigate and report on the proposition of generating or purchasing power at Niagara Falls and delivering this power to the municipalities interested. All of these men were sound, broad-minded business men of ability; men who had been successful in their own personal business and were well known to the people of the Province and in whom the people had implicit confidence. The commission so appointed was authorized to appoint a fifth member, an engineer and expert, so that the commission so constituted was able to deal with the proposition from an engineering, as well as from a business standpoint. Even this first commission so appointed by the municipalities to report on the possibilities of the proposed scheme was not subject to political influence, and the members of that commission were chosen, not on account of their political activities or their political leanings, but for their ability to obtain for the people the information that was required in order to decide their course of action regarding this great proposed publicly owned enterprise.

One of the members of that first commission was Sir Adam Beck, who has been connected

with the enterprise since its inception (and to whom the people of the Province owe a debt of gratitude which they can never repay), and it is mainly due to his keen business judgment and foresight that the scheme owes its phenomenal success, of which I will speak later in my address.

After a careful and exhaustive study and investigation, the commission submitted its report, which, to many people, appeared to be much too optimistic and visionary, but the report showed the great possibilities in the generation and delivery of electric power as a municipal undertaking on a cost basis.

The report, as you might expect, caused much discussion in the municipalities interested in the scheme, and naturally it was strongly opposed by practically all private power interests and other people with axes to grind.

The biggest obstacle, however, to the proposed scheme was not whether it was feasible or not, but the matter of financing a scheme of the magnitude proposed in the commission's report. The Provincial Government was again appealed to through public bodies, and many meetings, such as you have here to-day, were held, and the Provincial Government was requested to enact legislation to permit the interested municipalities to undertake the scheme as a municipal undertaking, and shortly after legislation known as "The Power Commission Act" was prepared and submitted to the Provincial Legislature and became law in 1905.

Under this legislation the commission has power to acquire or expropriate lands, water privileges or water powers, machinery and plant or any portion thereof of any person owning or operating under lease, or otherwise, or operating or using water power privileges or water power in transmitting electrical power or energy in Ontario, which, in the opinion of the Commission, should be purchased, acquired, leased, taken, expropriated and developed, or used by the Commission for the purpose of this Act. The Commission also has power to acquire by purchase, or otherwise, and hold shares in any incorporated company carrying on the business of operating, supplying and distributing electrical energy.

This Act has been amended and broadened from year to year, as necessity demanded that the Commission should be granted increased authority in handling the power business for the people of the Province and such other duties as the Provincial Government has considered it advisable to delegate to the commission from time to time.

This legislation is very broad and gives the commission very wide powers, but it cannot be unfair or unreasonable in any of its actions in regard to the expropriation (condemnation) of lands, water powers, plants and machinery, as all of its actions are subject to arbitration under the laws of the Province. Since the Act was enacted the commission and municipalities interested in the scheme have purchased over 20 water powers, 30 generating plants and some 60 distribution systems, and in not a single instance has it been necessary to take advantage of the commission's powers (of condemnation) to expropriate any of the foregoing under

this legislation, which, I think you will agree, speaks well for the fair methods followed by the commission in dealing with private companies and vested interests.

I shall now explain as briefly as possible the procedure necessary for a municipality to become a partner in the scheme; for the scheme is a partnership of municipalities, each municipality or partner paying "cost" for the service it receives.

The Council of the municipality wishing to join the partnership applies to the commission for an estimate of the cost of supplying the power which it requires, also, the cost of current to domestic lighting, commercial lighting and power users within the municipality, also, the cost of service for lighting the streets and the cost of installing the necessary stations and a distribution system to distribute the power to the consumers within its boundaries.

The commission's engineers then investigate the power requirements of the municipality and estimate the cost of the necessary stations and distribution system and also prepare an estimated schedule of rates at which current can be supplied to light and power users in order that the system may be operated on a self-supporting basis, as near as possible to cost.

This information, along with the financial liability which the municipality assumes on entering into the partnership scheme and signing a contract with the commission, is submitted to the municipality, and, if this information is satisfactory to the Council of the interested municipality, two by-laws are submitted to the rate payers: FIRST, what is known as an Enabling By-law (Referendum), by which the Council is authorized to enter into a contract with the commission for power; and SECOND, a Money By-law (Referendum), which authorizes the Council of the municipality to issue the necessary debentures to pay for the cost of constructing a distributing system within the limits of the municipality with which to distribute power to its proposed power and lighting customers. When these two by-laws have been submitted to the ratepayers and carried, the Council of the municipality signs a contract with the commission. All municipalities sign the same form of contract and agree to assume the same obligations, the amount of these obligations depending on the service rendered; that is, a municipality located 200 miles from the source of supply must pay a higher rate per horsepower and assume a larger financial obligation than a municipality located only 20 miles from the generating plant and using the same amount of power.

Under these contracts, which are for a period of thirty years, the municipalities agree to pay annually interest and sinking fund on a proportionate part of the cost of lands, stations and equipment necessary to supply them with power, and to pay a proportionate part of the line loss, and a proportionate part of the cost of operating, maintaining, repairing, renewing and insuring the said plant; and to pay monthly, as a minimum, for three-quarters of the power supplied and held in reserve—power to be

measured and supplied on the basis of the greatest amount taken during any twenty consecutive minutes during any month—the whole basis of these contracts being that power will be supplied to each municipality on the basis of COST.

Now, you may ask, what is the meaning of the word "cost" as applied to these contracts? It has been on the interpretation, or meaning, of this word that many people opposed to the scheme, not only in our own Province but in different parts of the United States, have based the arguments on which they claim the scheme is not a financial success.

By the word "cost" I do not mean the cost only of power as purchased or generated at the source of supply, but the word "cost", as applied to these contracts, includes the cost of power at the source of supply, interest charges, sinking fund charges, maintenance, operation, renewals and all other charges applicable to any business of this character on the expenditure necessary to generate, transmit and deliver power to these municipalities, the whole being adjusted so as to insure the discharge of the whole indebtedness in thirty years; that is, the whole of the investment made by the municipalities to be retired by a charge included in the cost of the power, or the price at which the power is to be delivered to the municipalities in a period of thirty years.

The municipalities, in addition to paying for the cost of power at the source of supply and all the other charges I have just mentioned pay in their rate per horsepower an amount, to set up a depreciation fund which will be sufficient to install a new system when the present system is obsolete or worn out; so that, in reality, the municipalities are not only paying for the cost of power supplied, but are paying for two complete systems in thirty years. Yet, in spite of these facts, many of our opponents state that the proposition is not financed on a safe and sound basis and that some of the charges are omitted or improperly made.

Our opponents (and we still have opponents in spite of the figures which I shall presently quote you) say that the commission is a huge monopoly, and some call it an octopus reaching out its tentacles to suck in the plants of private companies, while, in reality, what they see through their distorted vision is the arms of a parent, their own guardian and trustee, holding the municipalities together by the ties of co-operation for the general good and prosperity of the province. The commission does want to create a monopoly, as we believe that all undertakings of this nature must, of necessity, be monopolistic in character, for, as you know, there is little benefit in competition in telegraph and telephone systems and certainly not in electrical supply systems, for in the end it is the consumer who pays, and, if there is competition, he pays in his bill for service the cost of two or three systems instead of the cost of only one system where a monopoly, such as the commission is endeavoring to obtain, exists; and it has always been the policy of the commission to acquire the plants of existing electrical supply companies, where possible, and to combine them all in one

general scheme for the most economic operation.

While the legislation which I have just mentioned (The Power Commission Act), under which the commission operates, is, as I have said, broad and far reaching, the commission is not altogether an independent body acting on its own responsibility without regard to any higher authority, but, on the contrary, the commission is appointed and controlled by the Provincial Government to act as trustee for the municipalities who are partners in the scheme, and has no power whatever to expend money or to undertake the construction of any work without the consent and permission of the Provincial Government.

The commission cannot expend money, borrow money, issue any bonds, or undertake any construction work without first obtaining an order-in-council from the Provincial Government, so that the commission is at all times under the control of the Provincial Government.

The commission is appointed to act as trustee for the municipalities who have signed contracts. The municipalities in turn, while they pay for and operate their own distribution systems, are under the control of the Provincial Commission, and they cannot issue debentures, or undertake any work or expenditure in connection with their electrical plant and distribution system without obtaining the approval of the commission. Each municipality must elect its own local commission to handle the business of its own system, all rates for service being fixed by the Provincial Commission, and these rates must be enforced impartially and without discrimination.

The commission's auditors install a standard system of accounting in each municipality, and each municipality's books are frequently checked to see that all charges are properly made, and each year a detailed analysis is made of the operation of each municipal system by the commission to determine how each branch of the service stands as regards paying for the cost of service, the rates being adjusted by the commission from year to year on the basis of cost, each branch of the service being made to stand on its own feet; that is, the rates to lighting customers must be sufficient to pay the cost of service to these customers, and likewise the rates to power customers must be sufficient to pay the cost of that service; and the rates to lighting customers cannot be increased above "cost" in order that cheap power may be supplied for commercial purposes at less than cost. In the same way the cost of service supplied for street lighting and for the operation of waterworks and municipally owned street railways is annually determined, and, under the Power Commission Act, any surplus that is found to result from supplying power for municipal purposes, such as street lighting, waterworks, etc., must be refunded to the general fund of the municipality. So the old argument of some of our opponents, that excessively high street lighting rates are charges and paid out of taxes in order that service might be supplied to light and power users at low rates is entirely without foundation. So, while each municipality

purchases power from the commission and owns and operates its own system, it does so under the supervision and direction of the Provincial Commission so that yearly changes in the personnel of the local commission does not necessarily change the policy followed in the operation of the local system, an advantage which you, as business men, will readily appreciate.

The duties of the commission have been enlarged and extended from time to time since the date it was first appointed, and now the commission has in its employ over 400 graduate engineers, over 500 other office employees, over 500 operators, and until very recently from 6,000 to 7,000 men engaged on new construction work.

The commission has supervision of all outside and inside wiring in the Province, and the commission's wiring rules are considered to be among the best in the world and are strictly enforced throughout the Province. To insure the safety of the users from accident and of the buildings from fire, all electrical equipment sold through the Province must receive the approval of the commission. In this way the innocent purchaser is safeguarded when purchasing electrical apparatus, as no one is permitted to sell or use electrical devices that might be dangerous to the public safety. To handle this work the commission has constructed one of the best equipped laboratories of its kind on the continent. In this laboratory are inspected various kinds of electrical equipment, such as lamps, meters, transformers and all electrical appliances, and in order that the consumer may obtain devices at a minimum cost the commission is permitted under the amended legislation to enter into the business of purchasing and selling electrical supplies, which it has done in a large way to the benefit of its customers throughout the Province.

But you ask, "Has the scheme been a success financially? Has it always stood on its own feet, and does it now stand unsupported as a financial success like any other successful business, and pay dividends to its shareholders?"

If you invest money in an enterprise or business, and that enterprise or business pays you dividends, you say that it has been a financial success; if it does not, and in order to keep the enterprise going you have to meet expenses out of funds obtained elsewhere, you naturally consider the enterprise or business a failure financially. And why should not a publicly owned and operated enterprise, such as I have just described and which has been in operation for over ten years, be judged on the same basis as any other private enterprise or business? If it has been a success, then it should have paid dividends to the shareholders or partners in the scheme for, as I have previously stated, the whole scheme is a partnership of municipalities, each partner agreeing to pay its proportion of the cost of service and each partner participating in the profits or dividends accruing from its operation in proportion to the service rendered. Then you ask, "What dividends has each municipality or partner in the scheme received to date, and what has been the benefit to each

individual light and power consumer in each municipality supplied?" The success of the scheme is best shown by its growth. It originally started in 1910 with 14 municipalities having contracts with the commission to be supplied with power from the Niagara system, the system constructed to supply, which cost approximately \$3,750,000. The load taken in that year was less than 1,000 horsepower, and, although the commission had made a contract with the Ontario Power Company, one of the large generating power companies at Niagara Falls, for 100,000 horsepower, many so-called experts and business men of the Province predicted that the commission would never use one-tenth of that amount. From that date up to the present the growth of the scheme has been phenomenal. This can best be shown by the number of municipalities added to the scheme each year, the number of consumers served and the total average monthly load in horsepower delivered.

Year	Number of Urban Municipalities	1920 Number of Townships	Total Number of Consumers	Total Load in October Delivered in HP.
1910	10	.....	.....	750
1911	26	.....	.....	15,214
1912	36	.....	34,967	31,019
1913	51	7	65,689	45,502
1914	82	12	96,844	76,977
1915	112	18	120,828	103,959
1916	166	25	148,732	167,661
1917	179	34	170,916	333,399
1918	193	41	183,987	316,592
1919	208	42	216,086	328,175
1920	217	43	244,388	355,798
1921	232	44	.....	.....

These figures, I think you will admit, are good evidence of an active, healthy growth and expansion of the system throughout the entire period that it has been in operation.

It has been stated that without the large supply of cheap power from the Niagara system, the scheme would never have been possible, but I wish to take exception to such statement, as the growth and expansion shown in the figures I have just quoted have not all occurred on one system. From one system (Niagara) operating in 1910 and supplying a part of the southwestern part of the Province, the scheme has extended to practically all inhabited parts of the Province, and, at the present time, the commission is supplying power to municipalities in different parts of the Province from 14 different generating systems, each system serving from 1 to 150 municipalities. These systems are as follows:

System	Load in HP. October 1920	Number of Municipalities Supplied	Number of Consumers
Niagara.....	191,680	149	199,775
Severn.....	6,413	19	6,632
Eugenia.....	3,633	23	5,750
Wasdells.....	646	10	875

St. Lawrence....	2,337	6	2,956
Thunder Bay....	5,985	1	3,609
Muskoka.....	1,267	2	787
Thorold.....	1,784	...	982
Rideau.....	2,304	3	2,939
Essex.....	1,126	7	3,299
Ontario Power			
Co.....	103,058	...	...
Ottawa.....	7,640	1	10,939
C O S.....	26,576	35	24,063
Nipissing.....	1,349	4	2,939
	355,798	260	265,545

Each system stands on its own feet financially and is operated entirely independent of the other systems except, in some instances, where one system sells power to another, or vice versa, at different seasons of the year, depending on load conditions and conditions of water supply. Financially, however, each system must be entirely self-supporting, and the consumers supplied from each system pay all of the cost of operating that particular system in the rates charged for light and power. Nor has it been the practice of the commission to supply large municipalities only, but even the smallest of public villages are supplied on the same basis as the large cities, that is, at "cost"; and through co-operation of all of these municipalities with each other, the cost of service to the small villages is not excessive even though they are, in many cases, located over 200 miles from the source of supply.

The entire capital cost of the various power developments and transmission systems are pro-rated annually against the municipalities connected and supplied according to the relative use made of lines and equipment and distance from the point of generation, and the entire annual expense of operation, maintenance, administration, interest and sinking fund on the Provincial debentures and full depreciation are paid out of revenue collected from the municipalities through the medium of thirteen power bills rendered by the commission each year. Twelve of these bills are rendered at a fixed estimated rate, and a thirteenth bill or credit memorandum, as the case may be, is rendered when the commission's books are closed at the end of each year and the actual cost determined. There is no burden on the taxpayers or non-users, and no revenue through which losses, should they occur, could be absorbed except by direct charge to the contracting municipalities. It should be noted that the sinking fund on the debentures is treated as an operating expense, and that the municipalities are not only paying the interest on the investment but are paying off the principal by means of a sinking fund, and, in addition, are providing for the perpetuity of the system through an adequate depreciation fund.

The municipalities in turn, through their locally elected public utilities commissions, distribute the current purchased from the parent commission to their consumers, the rates at which this current is supplied being fixed by the Hydro-Electric Power Commission of Ontario, which superintends the operation of all of the municipal systems.

These rates are based on cost, and this cost includes all local operation, maintenance, administration, interest and sinking fund on the municipal debentures and an adequate provision for depreciation. In this case also all costs are met out of revenue, no tax levies of any kind being made and no burden falling on the non-users of power.

I have here a copy of the Hydro-Electric Power Commission's balance sheet for the municipalities supplied from the largest system, the Niagara system, which system now supplies over 150 municipalities of various sizes, ranging in population from the City of Toronto, with a population of over one-half a million people, down to public villages supplying less than 50 customers.

I am not going to attempt to read you all of the figures on this balance sheet, but I shall give several copies of it to your secretary so that any one particularly interested in studying the success of our operations in the Province of Ontario may obtain the information which he desires.

I might state, however, that out of some 150 municipalities listed in this balance sheet, less than 10 per cent were unable during the year ending December 31, 1920, to meet all costs of operation including the depreciation fund to provide for the perpetuity of the system, and practically all of these latter municipalities have only been in operation a short length of time and will in another year at the most have a credit balance on their books.

You may ask, "What do these figures mean to the municipality, and what do they mean to the light and power consumer who, after all, is the man who pays?"

I have previously stated that a scheme of this kind should be judged on the same basis as any private business, and, if it were a success, it should pay dividends to its shareholders. Now, according to the legislation under which the commission operates, power must be supplied at "cost", or as near "cost" as can be determined, and, at the end of each year, if the operation of any municipal system shows a profit, if power is to be supplied at cost, this can only be done by reducing the rates, or the amount paid by the consumers, and if the rates are reduced and the consumer pays less for the service he receives, that reduction I maintain is the consumer's dividend, just as much as if a check were handed to him by the municipality each month for the amount of the reduction in his power and lighting bills for the service which he receives and for the current used for lighting alone. Since the hydro-municipalities first began to operate, the saving in rates charged over what would have been paid at the old rates amounts to over \$38,000,000, and at least \$20,000,000 more on power used, or a total dividend of over \$58,000,000 has been paid to the shareholders (consumers) in ten years operation, five of which were fraught with unprecedented difficulties created by the greatest economic upheaval the world has ever witnessed.

I am not going to quote you a few figures to show what the dividends amounted to in a few of the municipalities supplied. (See statement.)

We are supplying power to practically all the cities and towns in our Province, all of the larger villages and most of the small ones, and have already constructed over 500 miles of pole lines to supply rural customers in various parts of the Province, and so great has been the demand for power in rural districts that at the last session of our Provincial Legislature an amendment to the Power Commission Act was passed whereby, for the purpose of power supply, the commission is authorized to divide the Province up into districts known as "Rural Power Districts", the boundaries of these districts being fixed arbitrarily, according to the distance power can be supplied economically from existing power centers or from lines or power centers that might be established for this purpose.

To help stem the tide of our young people going from the farms to the cities, the Provincial Government passed an amendment to the Act whereby the Government proposed to assist farmers to obtain some of the advantages enjoyed by the city consumers, and out of the revenue obtained by the Provincial Government for water power rentals (and it might be interesting for you to know that the commission pays the Provincial Government a rental for all of the water power which they use), they have agreed to pay 50 per cent of the cost of primary lines on highways constructed to supply power to farmers throughout the Province, where sufficient business can be obtained to make the proposition self-supporting. This phase of the situation is an entirely new one and is explained by the fact that the destinies of our Province are now guided by a "Farmer Government."

Surveys and investigations have been made of the power requirements in rural power districts in different parts of the Province. Estimates have been prepared of the cost of constructing pole lines and also of the cost per mile of installing underground cable, for we find it to be more economical, in some cases, to install lines to supply rural customers over underground cables than by means of overhead pole lines. Standard rates have been calculated showing the cost of supplying service to farmers over these lines, and rates have been forwarded to over 200 townships.

The cost of power to the farmers will vary according to the amount of power which they use, the total cost being made up of two charges: First, a service charge to cover a proportionate part of the interest, sinking fund, operation, maintenance, depreciation and renewals on the lines and equipment installed to serve them; and second, a kilowatt-hour, or energy, charge under which the farmer pays for the amount of current which he uses as measured by meter.

If a sufficient number of farmers in a district sign contracts with the township for power at the rates submitted, lines will be constructed to supply service, these lines being operated by the commission under a contract with the township, service being supplied at "cost".

To date over 3,500 farmers have signed contracts for power at the rates submitted, and, at the present time, the work of constructing lines to supply service to these farmers is under way, the farmers themselves

doing the work during off-seasons under the supervision of one or two line construction men, and being paid the standard rate of wage for all the labor and teaming which they supply.

The rates in each Rural Power District will be the same for each class of service, and each Rural Power District shall be a co-operative, independent and self-sustaining unit within itself.

The rates, as first forwarded to the townships, are on the basis of maximum rates, based on obtaining three farmers per mile of line constructed, and no lines will be constructed unless this number of consumers are obtained, or sufficient revenue guaranteed to meet all costs of operation.

As additional consumers are added, the service charge will necessarily be reduced each year, so it is in the interests of each partner in the co-operative scheme in each Rural Power District to get all of his neighbors to sign contracts and take service in order to obtain lower rates to all consumers within that Rural Power District.

With the maximum rates on which each district will be first considered, service can be supplied to small hamlets or groups of houses for lighting purposes only, which will permit these customers to use irons, toasters, vacuum cleaners, etc., at a total cost of approximately \$23 per year. Lighting for individual houses, located along the highways along which the lines are constructed, but not farm houses, can be supplied at a total cost of approximately \$93 per year. Light farm service for the operation of a 3-horsepower motor or an electric range, including the operation of lights, irons, toasters and other conveniences, can be supplied at a total cost of \$86 per year. Medium farm service, including the lighting of houses and farm buildings and the operation of small equipment, such as small motors up to a maximum of 5-horsepower or an electric range, can be supplied for approximately \$112 per year. Heavy farm service, including the operation of all of the above mentioned equipment, and including the operation of a 10-horsepower motor, can be supplied for approximately \$220 per year. Arrangements can also be made for the operation of large syndicate outfits owned by five or six farmers, with a large 20 to 25 horsepower motor mounted on a wagon or truck which may be moved about from place to place and is large enough for the operation of threshing machines, and such other equipment where more power is used than the amount set out in the individual contracts. The rates I have quoted you are average rates and, in many districts, service can be supplied at much lower figures.

At the beginning of my address I told you that this was a big subject to cover intelligently in such a short space of time, and I have, therefore, merely outlined the scheme and told you a little of the success of its operation.

If time would permit, I would also like very much to tell you something about the largest generating plant in the world known as the "Queenston-Chippewa Power Development" which the commission has just completed; and I expect that to-morrow, December 10th,

water will be first turned on into the 12-mile canal which has just been constructed. This development, when the generating plant has been completed, will have a capacity of between 500,000 and 600,000 horsepower and will cost in the neighborhood of \$60,000,000. Two of these units, with a capacity of 50,000 horsepower each, are practically ready for operation. The third unit will be installed in the early spring, and already we have over 150,000 horsepower waiting to be supplied from this plant, in addition to the power which can be supplied to the other plants on the Niagara system when working to maximum capacity.

In ten years our Provincial scheme has grown from one system supplying 14 municipalities, with less than 1,000 horsepower and an expenditure of \$3,750,000, until at the present time the commission is supplying 14 different systems in different parts of the Province which supply 232 urban municipalities and 44 townships, or 276 municipalities in all, with over 350,000 horsepower and an expenditure of over \$175,000,000, which figure, including the cost of completing the Queenston-Chippewa Development and the purchase of another of the large power plants at Niagara Falls, will be increased during the coming year to over \$210,000,000. The population which is served is approximately 1,600,000 people and the number of consumers supplied over 270,000; and, as I have previously stated, this scheme is entirely self-supporting, not one cent ever having been levied in taxes in any municipality to meet any part of the cost of operating any of the systems.

I am now going to tell you the secret of the

success of the scheme which I have just outlined. It is expressed in one word—"co-operation." It is not a government ownership scheme; it is not a public ownership scheme as you understand public ownership; it is not a municipal ownership scheme as you understand municipal ownership. Then you ask, "What is it?" It is a "municipal ownership" scheme, assisted by the Provincial Government in that the Province loans the commission money for the construction of plants and works, and it is operated entirely free from politics or political influence of any kind whatsoever as a business undertaking. All of the municipalities in the scheme co-operate as partners, and the entire scheme is operated and controlled by an independent commission; and just so long as our scheme is kept free from politics and all that politics in such an undertaking would mean, just so long will it continue to operate successfully.

From the very interesting and instructive address delivered here yesterday, I have learned something about the proposed development of the Colorado River for the purpose of flood control, irrigation and power development, and, from what I have learned, I believe that this great problem can only be solved by "co-operation"—co-operation of this country with your neighbors to the south in Mexico; co-operation of state with state, municipality with municipality, individual with individual. I have told you something of the success of our undertaking, the greatest municipally owned power project in the world. We started from a small beginning and have succeeded by co-operation. You can do the same. (Standing applause.)

CAMP ROOSEVELT—BOY BUILDER

Since the recent war, conditions, especially in the business world, have been placed on a new basis. A new system of handling business affairs, starting from a new angle—in other words, wiping the old slate clean and starting afresh seems to be the attitude of business men.

One of the strong undercurrents of thought seems to be the taking stock of one's self, summing up and weighing in the balance to find out where the shortcomings may be. Not so many years ago, the average business man refused to dissect what he did know about his business from what he did not and might know. If he was fairly successful, he was satisfied. Now, however, the effort to increase one's efficiency, to learn more about not only his own but

another business, is being made. The successful business man knows that he must continue to strive, for it is individual effort that leads to progress.

The boy of to-day is the man of to-morrow. The difficulty is in making the boy who in but a few short years will become a man realize the value of individual effort. Not being trained to grasp the importance of the power within himself, the boy soon grows to manhood, and in dreaming and pleasure-seeking, the most fruitful years of his life are mis-spent. He learns through bitter experience what he might have learned in his boyhood had this highly important feature of education been included in his school course.

Unfortunately, however, this training required not only concentration in groups

of boys, but concentration in the course outlined. It cannot be properly presented in the classroom, where it would necessarily become one of many other subjects taught, and where only a limited time could be devoted to any one subject. It must be made a special course, where the instruction may be clearly defined and the results in progress noted.

To congregate a large number of boys in one place has been found an ideal way to imbue this training of boy betterment. Of necessity, such a course must be taken during the summer vacation months, while the boys are not engaged in school activities. Knowing the stimulus which the great outdoors gives to any healthy pursuit, what could be more ideal than to gather together a group of healthy youngsters, close to nature, and there instruct them in the principles of a higher standard of individual perfection and better citizenship.

At Camp Roosevelt, the great outdoor national playground for boys, this important topic of boy-building is perfected. Camp Roosevelt is an ideal. During the past three years boys from nearly every State in the Union have been represented in its various periods of training. It is, therefore, safe to assume that a goodly number of our readers may have heard of its achievements, its purposes and aims.

It is difficult to boil down the diverse objects, values and ideals of the Camp Roosevelt idea into an expressive brevity. The scope of it all is so great that it rather defies immediate definition; but if one term more than another expresses the whole plan of Camp Roosevelt, that term is "Boy-Building."

While this term gives at least a general definition of the underlying purpose of Camp Roosevelt, it cannot give more than an intimation of the methods employed in building better boys. The ways and means for reaching the goal which it has set are complicated. A machine has been built up, however, that functions smoothly and efficiently in making good boys, strong boys out of weak ones, democratic boys out of juvenile snobs, and studious, attentive boys of harum scarum scatterbrains.

Every day at camp has its full quota of pleasure and diversion, but even the energetic youth does not find time

hanging dull and heavy on his hands. There is always something in progress to engage the energy of the boy. If studies are not keeping him busy, there is the drill or hike. There are swimming classes, athletics of various kinds, band concerts, moving picture shows, programs at the Y. M. C. A. hut, special drills, reviews and parades. All day long there is something to demand the interested attention of every boy, giving very little time for idle opportunity of mischief. Nightfall, and shortly afterward, the welcome notes of "tattoo" find the boys pleasantly fatigued and ready for the sound and dreamless sleep that can come only to the tired, healthy boy.

At the head of this institution, and constantly directing its activities, is Major F. L. Beals, U. S. A., the commanding officer and founder of the camp. This man is himself a boy lover and a boy builder. He understands boys, being a boy himself at heart, in spite of the manifold duties which engross his time and thought. It was Major Beals who conceived of the Camp Roosevelt idea, and in presenting it to the Chicago Board of Education, so impressed the members with its greatness of purpose that they took immediate hold of the project and are lending their unqualified support to the movement. The U. S. War Department gives ample support in the way of the use of such equipment as tents, cots, etc. The Camp Roosevelt Association, of which Mr. Angus S. Hibbard is Chairman, assumes all overhead expense, the boy paying but for his bed and board.

During the winter months, Major Beals occupies the position of Professor of Military Science and Tactics, and Supervisor of Physical Education in the Chicago public high schools. His offices are at the Board of Education, 460 S. State Street, which is also the headquarters for Camp Roosevelt. Descriptive literature and detailed information may be secured from the headquarters at all times.

Thinking fathers and mothers of growing sons would do well to interest themselves in this movement for boy betterment, and support to the fullest extent the Camp Roosevelt Plan.

ZONING VERSUS PRIVATE RESTRICTIONS

By Edward M. Bassett, Baltimore.

Sometimes private restrictions do not protect. A remarkable instance occurred in Brooklyn recently. About twenty-five years ago a developer owned both sides of a promising Flatbush street for three blocks. It was then sparsely settled but in the line of good development. He printed circulars containing maps and described the property as highly restricted for one-family detached houses. Home builders took deeds from him, containing restrictions against everything but high-class one-family detached homes and built according to the restrictions, considering that they were well protected. The corner lots, however, were held at a higher price and did not sell so readily. After a time, however, the neighborhood being well built up with private homes, the corner lots became highly eligible for apartments, and the developer conveyed them without restrictions. The home builders had made a mistake not to require the developer to put similar restrictions on his unsold land, but like many others they had assumed that the entire locality would be restricted. Apartment houses went up rapidly on the corners entirely altering the character of the neighborhood. All the home owners were injured. One of them, the widow of the original builder, moved her house away just in time to escape having its removal blocked by new apartment houses. She then had a vacant plot 100x100 restricted, however, to a one-family detached house. On the ground that the character of the neighborhood had changed, she appealed to the courts for a decree removing the restrictions and placing her land on an equality with the two adjoining corners covered by apartment houses. A party interested in one of the apartment houses resisted her application on the ground that the original developer had imposed one-family detached house restrictions on her land in order that future apartment houses on the corners might have an abundance of light and air. The court of first resort agreed with this objection and was sustained by the Appellate Court.

In that case the restrictions were perpetual. If they had been for twenty or twenty-five years, the owners of some of the corners would have postponed building until the restrictions expired when they would have put up apartment houses. Frequently when restrictions are about to expire homeowners will allow their houses to run down in order to sell their land for apartments afterwards. Private restrictions were never used to any great extent to prevent factories in business districts or tenement houses in block-house districts. As a rule their usefulness was confined to private residential development and their effect was temporary only.

Since New York adopted the zoning resolution property owners do not feel the need of private restrictions so much as before. The zoning is both more permanent and more elastic. It covers the entire city and protects against height, bulk and use. It stabilizes everywhere and prevents improper exploitation of built-up localities. Private restrictions are contracts and can only be altered by the parties or by the courts. The protection of zoning, however, being based on the police power can be easily changed in proper cases by the city itself. Where, however, owners of 20 per cent of the frontage affected protest against the change the unanimous vote of the city legislature is required. This makes an assurance of permanence.

The zoning plan has helped to prevent blighted districts in New York during the last five years.

Zoning and private restrictions do not interfere with each other. Both may exist hand in hand. Prudent developers will still use private restrictions to supplement the zoning regulations.

IS A CITY A STATE INSTITUTION?

A philanthropist made a bequest to a city for a pleasure pier and died within thirty days thereafter. The city attempted by suit to have the fund set aside to it under the will. It was im-

mediately claimed by the opponents that the bequest was invalid, because it was for a charitable purpose and was made within thirty days prior to testator's death within Civ. Code Cal. §1313. The objection was met by the contention that an amendment to such section excepted from its provisions bequests and devises to the state or to any state institution, or for the use or benefit of the state or any state institution. Did this exception cover a bequest to the use of a city? In other words is a city a state institution within the meaning of the exception? State institution has been defined in Words and Phrases as "institutions belonging to and owned by the state, and not such as might belong to particular municipalities or counties, though established under the legislative authority of the state." The court, in *Re Houk's Estate*, 200 Pac. Rep., 417, after quoting the above definition, immediately reached the conclusion that a city is not a state institution. "It is true," it concludes, "that cities and counties are agencies of the state, and for certain purposes branches of the state government, and are state institutions in the general sense that they are organized by state authority and for state purposes. But it would require an unjustifiable exercise of construction by implication to extend such amendment to cover a bequest to the use of a municipality of the state for the erection of a purely municipal improvement."—From the West Publishing Co.'s Docket.

COMMISSION MANAGER PLAN

The commission-manager plan is not a cure-all. It is capable of going in the wrong direction like any other human organization. A city charter is like an automobile—nothing mechanical can be devised that will keep the owner from driving it up the wrong fork of the road. The makers must strive to make the car infallibly obedient to the steering-wheel and completely under the driver's control. The city-manager automobile is of all kinds the one that is least able to defy public sentiment or escape popular control. It is the best make and the easiest for the general public to drive without the help of political chauffeurs.—*National Municipal Review*.



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FROM POWER PLANT TO POOL

From "The American City"

PALO ALTO, CALIF.—The municipal swimming pool at Palo Alto is operated as a by-product of the city's power-plant. It is so popular that its discontinuation would be considered a calamity by the younger generation. It is strictly an open-air pool and is maintained during the whole year. There is no charge for admission, and on hot days as many as 500 persons have made use of it.

Electrical energy is generated in the Palo Alto plant by Diesel engines. These machines are water-cooled, and at first the water was passed over a cooler on the roof of the plant and used over again. This did not prove successful, and the hot water was turned back into the mains from which it first came. This raised the temperature of the domestic supply to such an extent as to be objectionable, and had to be discontinued. The idea of running the water into a wading pool for children then came to mind, and from this has grown the present municipal swimming pool.

The pool is circular in shape with a conical bottom, and is constructed of cement with a row of red brick around the top. The diameter is 100 feet, and the depth is 2 feet at the edge and 5 feet

in the center, giving a capacity of a little over 176,000 gallons. These dimensions make it comparatively safe for children, and no guard has been necessary. The water enters at the center of the bottom and runs off at five skimming basins placed at regular intervals on the circumference.

The amount of water used for cooling the Diesel engines averages approximately 130,000 gallons per 24 hours. The temperature of the water leaving the engines is sufficient to maintain a temperature of 80 degrees F. in the pool. With 130,000 gallons of fresh water entering every 24 hours, the water in the pool is completely renewed each 32 or 33 hours.

To render the pool as safe as possible, from a health standpoint, and to prevent the growth of algae, the water is treated with chlorine gas and copper sulphate, about 1.3 parts per million of each. The heavy dosage has been found necessary to control the growth of algae, neither treatment alone being effective. In addition, the pool is emptied and scrubbed with unslacked lime once each week.

LOUIS OLSEN,
Health Officer.

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EDWARD GLASS

REDDING NETTED \$2,107.13 ON LIGHT PLANT FOR FIRST
TWENTY DAYS

The City of Redding recently took over the Pacific Gas & Electric Company's electrical distribution system in that city and in response to our inquiry as to the success of the system under municipal ownership, we received the following letter from City Manager E. A. Rolison, which is self-explanatory:

February 20, 1922.
League of California Municipalities,
Pacific Building,
San Francisco, Calif.
Gentlemen:
I am in receipt of your letter under date of Feb. 18th requesting Financial Report showing profits made by our Municipal Electrical Distributing System since the same was acquired by the City on Dec. 6th, 1921.
Our first report covers a twenty-day period extending from Dec. 6th to Dec. 27th and among many other details, shows the following:
Revenues—
Gross Sales\$4,138.14
Expenditures—
Interest & Depreciation \$ 401.38
Maintenance and Operation 449.63
Power Purchased 1,180.00

Total Expenditures 2,031.01

Net Profits for 20-Day Period.. \$2,107.13
I am enclosing herewith copy of complete report which you will note differs slightly from the above synopsis due to the fact that at the time this report was prepared the City had not been rendered a bill for power

and this item was estimated at \$1,300.00 in the report when, as a matter of fact, it was only \$1,180.00.

We are just now preparing a Financial Report for the month of January, during which time our gross sales amounted to the sum of \$5,385.74 and our cost of power amounted to \$1,771.28; leaving a balance of \$3,614.46 from which we must deduct our cost of maintenance and operation, which has not yet been computed. However, it is safe to say that the net profits for this period will be considerably in excess of \$2,000.00.

The above figures were taken from a Financial Statement prepared by Mr. Winfred Wright, Expert Accountant, who was employed by the City to do this work. Mr. Wright has done practically all of the City and County work in his line in northern California for many years past and his reputation as an expert accountant cannot be questioned.

Trusting that the above information may be of some use to you and assuring you that I will be more than pleased to keep you informed as to our progress, I am,

Very truly yours,
E. A. ROLISON,
City Manager.

FINANCIAL STATEMENT OF ELECTRICAL DEPARTMENT
OF THE CITY OF REDDING
For Twenty Days' Operations, to December 27th, 1921

ASSETS

Cash on Hand	\$ 20.00	
Cash in Treasury	2,996.33	\$ 3,016.33
REVENUES:		
Sale of Lights	\$3,037.47	
Sale of Power	963.72	
City Lights	134.99	
City Power	1.96	\$ 4,138.14
Less Amounts Collected—		
Lights	\$2,920.86	
Power	963.72	
City Lights	134.99	
City Power	1.96	4,021.53
Amount uncollected on Lights		116.61
Distributing Plant, Cost		57,356.18

Additions and Betterments—		
Labor	\$ 101.67	
Material	94.97	196.64
Gross Cost		\$57,552.82
Less Reclaimed Material	\$ 46.18	
Less Depreciation	125.00	171.18
Net Cost		\$57,381.64
Property Accounts—		
Furniture and Fixtures	\$ 205.35	
Buildings and Additions	103.41	
Autos and Equipment	197.40	
Office Supplies on Hand.....	255.24	
Stock Room Supplies on Hand.....	77.74	839.14
Gross Cost of Plant and Equipment.....		58,220.78
Total Amount of Assets.....		\$61,353.72

LIABILITIES

Consumers' Deposits		\$ 20.00
Accrued Interest on Bonds	\$ 266.66	
Accrued Interest on Loans	9.72	276.38
Loans, Certificates for Advances.....	\$5,000.00	
Less Credits applied	279.41	4,720.59
Bonded Indebtedness		40,000.00
General Fund, City of Redding		10,000.00
Unpaid Claims		41.62
Estimated Power Bill from Dec. 6th to Dec. 27th, 1921, Unpaid		1,300.00
Premiums and Interest on Bonds.....		3,008.00
REVENUE ACCOUNTS:		
Sale of Power and Light.....	\$4,138.14	
Less Expenses—		
OVERHEADS:		
Interest on Loans.....	\$ 9.72	
Interest on Bonds	266.66	\$ 276.38
Depreciation of Plant.....	125.00	
Maintenance and Operation—		
Labor	\$285.58	
Miscellaneous	24.30	311.68
Office Expense—		
Salaries	\$107.75	
Supplies	30.00	137.75
Power Estimated from Dec. 6 to Dec. 27, 1921	1,300.00	
Gross Amount of Overhead, Fixed Charges, etc.....		2,151.01
Net Profits		1,987.13
Total Amount of Liabilities.....		\$61,353.72

Note:—The above report was compiled from the books, records and accounts of the City, as per my audit.

Respectfully submitted,

WINFRED WRIGHT,

Expert.

Approved:

E. A. ROLISON,

City Manager.

IMPROVING THE PAVEMENT ALONG RAILWAY TRACKS.

(By C. S. LEE, Highways Information Service, 919 National Association Bldg., New York City.)

Engineers have used various methods in an effort to obtain a successful type of construction for paving along railway tracks. They have been confronted with this problem of devising the most durable and economical pavement, one that will have resilient qualities capable of absorbing the vibration caused by passing cars, and which will prevent water percolating through to the base of the tracks, thereby weakening the foundation.

The paving along the railway tracks of Dalton avenue, between Santa Barbara and Vernon avenues in Los Angeles, is an experience of many years and is being brought to the attention of engineers as a worthy example of the inherent qualities of asphaltic concrete pavements for this type of construction.

The manner in which it was constructed is as follows:

Upon the soil, which is a heavy "black adobe" was placed crushed rock having a thickness of six inches after rolling. The ties were laid on this base, then a layer of crushed rock was placed around the ties, and well tamped to a thickness of nine inches. The surface consists of a four-inch asphaltic concrete pavement, Warren type.

This work was completed in 1915, and to date the maintenance has been nothing, the pavement being in perfect condition.

The pavement extending to the curb was also laid in 1915, and consists of a three-inch asphaltic concrete base with a 1½-inch asphaltic concrete wearing surface, Warren type. It, too, is in very good condition to-day.

FIRE CALL BY WIRELESS.

Superintendent of the Dallas, Texas, Fire Department has his car fitted with wireless apparatus for receiving and transmitting messages. Recently while en route, two miles from the fire station, he received a fire call—this is the first recorded instance of an actual fire call by wireless.



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PAUL R. COWLES, Manager

WHAT OUR PACIFIC COAST CITIES ARE DOING.

Yreka. The Board of Trustees discusses plans for the erection of a municipal swimming tank on the city park property north of the city hall.

Corcoran. The water system of this city is to be improved. Some 400 feet of eight-inch mains, and 2100 feet of six-inch mains are to be laid.

Redwood City. This city has purchased a new Seagrave pumping engine for the fire department. The price was \$13,000. In April the electors will vote on the question of purchasing the plant of the Redwood City Water Co. The price asked for plant is \$30,000.

Santa Rosa. This city has recently passed a meat inspection ordinance to go into operation March 1st. It provides that no meat be offered or displayed for sale for human consumption in Santa Rosa unless it bears the stamp of federal, State or municipal inspectors.

A movement is under way for a new charter. The City Manager plan of government is favored. On February 3rd the City Council passed an ordinance calling for the election of a board of freeholders to prepare for a new charter.

Mr. Wm. J. Locke, Executive Secretary of the League, has within the past month delivered a number of addresses throughout the State on the subject of new charters and the city manager form of government. Mr. Locke spoke at Eureka, Sebastopol, Santa Rosa, and Tulare.

DUES RECEIVED SINCE JAN. 1, 1922.

Auburn	\$ 20.00
Banning	20.00
Elsinore	10.00
Fowler	20.00
Red Bluff	30.00
San Juan	10.00
Sisson	10.00
Woodland	30.00
Total.....	\$150.00

MENDOCINO ROAD CONTRACT AWARDED

Monterey County Work Let for \$23,500

Sacramento, Feb. 14.—Connors & Hansen of Santa Rosa were declared the low bidders for work on 17.31 miles of highway between Forsythe Creek and Outlet Creek in Mendocino county, when bids were opened today in the offices of the State Highway Commission. The firm bid \$275,482.50 on reinforced concrete construction and \$274,994 on bituminized asphalt macadam.

Rhodes & Price of Hilt, Cal., were lowest bidders on the improvement of 16.67 miles of State highway between San Felipe and the easterly boundary of Santa Clara county, their offer being \$195,890.70 for metal pipe and \$203,466.50 for reinforced concrete pipe.

Grant Smith & Co. were lowest on construction work between King City and the south side of Salinas river in Monterey county, with a bid of \$23,500

CONSTRUCTION IN GLENN COUNTY

The California Highway Commission has allotted the sum of \$150,000 for the improvement of a road east from Willows to Glenn. This allotment is based on an agreement with the Supervisors of Glenn County to appropriate \$50,000 towards the cost of the construction of the bridge over Stony Creek on the Orland-Chico road. The contemplated improvement between Willows and Glenn is a part of the Willows-Oroville lateral, which was made a State road by legislative action.

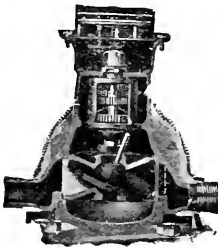
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TITLES OF NEW ORDINANCES RECEIVED

- Boundaries.** An amendatory ordinance changing the boundaries of the supervisorial districts of the County of Napa. Napa County, No. 116.
- Bonds.** An ordinance providing for the issuance and sale of bonds of the City of Ely in the sum of twelve thousand dollars for permanent improvements and for general corporate purposes, and providing for and levying a tax for the redemption thereof. Ely, Nevada, No. 107.
- Curb Lines and Grade.** An ordinance establishing a Plan, Line, and Grade for cement walks and curbs. Sonoma, No. 151.
- Curb Lines.** An ordinance establishing center lines, curb lines, grades, etc. Santa Cruz, No. 1264.
- Civil Service.** An ordinance establishing a bureau of civil service; providing for the appointment of the civil service commission; providing for a personnel director thereof, and establishing the conditions under which said bureau shall operate. Berkeley.
- Dog Licenses.** An ordinance providing for dog licenses for the year 1922. Susanville, No. 122.
- Election.** An ordinance calling and providing for a special election for the purpose of excluding territory. Orland, No. 71.
- Election.** An ordinance providing for the general election. Santa Rosa, No. 361.
- Election Precincts.** An ordinance dividing the Town of Redwood City into election precincts and establishing the boundaries thereof. Redwood City, No. 223.
- Freeholders.** An ordinance calling for the election of a Board of Freeholders to prepare and frame a new charter. Santa Rosa, No. 363.
- House Drainage and Sewers.** An amendatory ordinance relating to house drains and sewers. Eureka, No. 860.



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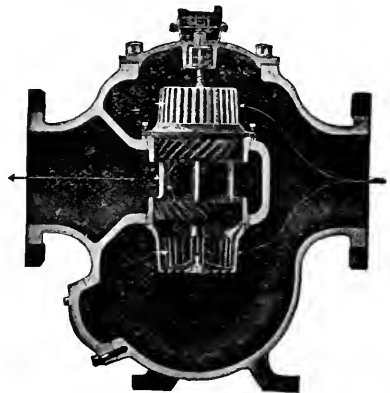
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- Licenses.** An amendatory ordinance regulating business and professional licenses. Montebello, No. 52.
- Licenses.** An amendatory ordinance regulating business and professional licenses. Gridley, No. 74.
- Licenses.** An ordinance providing for the future issuance of licenses or permits to the licensee whose license has been cancelled and making this ordinance an emergency measure to take effect immediately. Sacramento, No. 51.
- Meat Inspection.** An ordinance providing for the inspection of meats and meat products. Santa Rosa, No. 364.
- Names.** An ordinance changing the names of certain streets and avenues. Redwood City, No. 222.
- Pool Rooms.** An ordinance providing for the granting and revocation of permission to conduct public pool or billiard rooms. Oakdale, No. 138.
- Prohibition Enforcement.** An ordinance prohibiting the sale, manufacture, transportation or unlawful possession of intoxicating liquors. Taft, No. 137.
- Port Regulations.** An ordinance of the City of Newport Beach prescribing regulations for the government of persons in charge and control of vessels in Newport Harbor, and prohibiting certain acts therein and creating a penalty for all violations thereof. Newport Beach, No. 180.
- Soft Drink Parlors.** An ordinance regulating soft drink parlors, providing for the issuance of licenses and permits and fixing a penalty for violation. Petaluma, No. 210 (Charter Series.)
- Sidewalks.** An ordinance repealing ordinance No. 29 and relating to the construction of sidewalks, curbs and gutters. Oakdale, No. 136.
- Transportation.** An ordinance prohibiting transportation of persons and property for compensation over certain public highways of the county of Contra Costa. Contra Costa County, No. 162.
- Weight of Loads.** An ordinance governing traffic and relating to weights of loads of vehicles passing over paved streets. San Bruno, No. 61.

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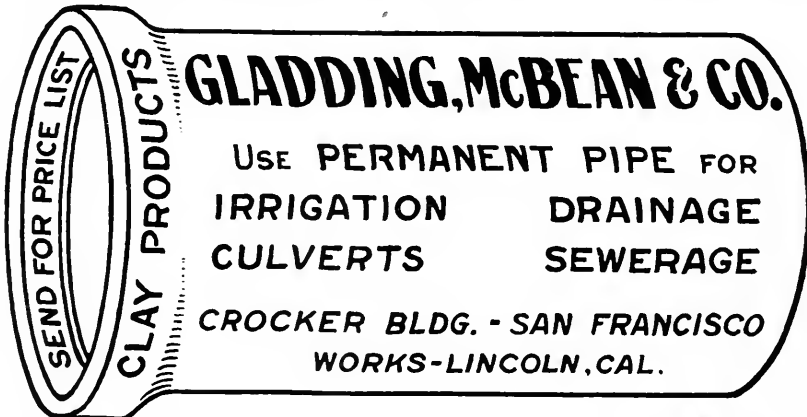
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Typical Garden Scene in Palo Alto, Convention City, 1922.

LEADING ARTICLES IN THIS ISSUE

The Alameda Health Center, Its History and Achievements.

By Dr. A. Hieronymus, Health Officer of Alameda 69

Interesting the Stockholders in the Community's Business.

By George Everson, Vice-President American City Bureau, San Francisco 77

Non-Technical Discussion of the City Planning Movement.

By Edward Glass, Architect, Director of Housing, Commission of Immigration and
Housing of California 83

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VOL. XXXVI

TWENTY-FOURTH YEAR

No. 3

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ADVERTISING RATES ON APPLICATION

Address all Communications to "PACIFIC MUNICIPALITIES," Pacific Building
San Francisco, California

March, 1922

NOTICE—Every city belonging to the League of California Municipalities is entitled to a copy of this magazine for each of its officials without extra charge. If not received kindly notify the Secretary.

A. Carlisle & Co., Printers, San Francisco

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Vancouver, Washington. 13th Street looking west. This pavement was constructed in 1913 and consists of a 3-inch asphaltic concrete base and a 2-inch asphaltic concrete surface. Nothing spent for maintenance. Photographed April, 1921.

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THE ALAMEDA CITY HEALTH CENTER ITS HISTORY AND ACHIEVEMENTS

By DR. A. HIERONYMUS
Health Officer of Alameda

Address Delivered Before the Recent Convention at Santa Monica

While undoubtedly the question of the greatest interest before this convention is the matter of the development of hydro-electric power, and that is a most important matter in this state now, yet perhaps you will all agree with me that the very greatest power in the world, the greatest power for this nation, and for this state as well as for our municipalities, is manpower. If you haven't good, healthy men and women, your streets and your sewerage plants and your garbage disposal plants and your lights and all of that amount to but very little. You must have healthy men and women and sound minds and bodies before you can accomplish anything.

The other day I went up with the crowd to the wonderful power plant of the city of Los Angeles, and it there struck me that healthy men, men with healthy bodies, were running that thing. And it emphasized the thought in my mind that we have got to do something in this country and in this state to in-

crease the health and the mental capacity of our people in order to accomplish the great work before us. So, while the absorbing subject of this convention is hydro-electric power, I believe that manpower stands forth over and above that.

When we started the draft back in 1917, that we might enter into the World War, everybody in this country thought we had a great nation of men and women. The general idea was that we were the healthiest, cleanest people in the world. And we had an awakening. I was assigned to one of the finest districts in Oakland, not the slums, but a section of the city where were to be found the best class of our residents, and the best apartment house districts. The very first day of that draft we had to examine over thirteen hundred between the age of twenty-one and thirty to find two hundred and fourteen physically fit men. They wanted to find five hundred absolutely perfect women in New York, and they had to examine

four thousand girls to find those five hundred perfect women.

That goes to show that there is something wrong in our health and in our educational system, because we are producing inferior men and women. I said that in examining thirteen hundred men to find two hundred and fourteen physically fit men, our examination was a very casual one—we simply followed the regulations of the government, looked at their teeth, their eyes, and their faces—we didn't go into a close or microscopical examination at all. If we had, why, Lord knows what we might have found.

Perhaps you will wonder why I am telling you all of this before we really get to the subject of health centers. I think it will be clear to you in a minute. I am just reminded of a story of a colored fellow, whose employer said to him, "Why, hello Sam, I am sorry to hear you have so much trouble." "Why," said Sam, "I ain't had no troubles, sah." Said the employer, "Wasn't that your father that was killed by the train this morning?" and Sam said, "Yes, sah, my old man, de train hit him, he is gone." And his employer said, "And wasn't it your baby that died of diphtheria the other day?" "Yes, sah, my poor little baby, she had diphtheria—couldn't do anything to save her. She is gone." "And wasn't it your wife," said his employer, "that went insane over the death of this little one?" "Yes, she could not stand the strain." "Man alive!" said his employer, "how can you say you haven't any trouble?" "That ain't my trouble—that's their trouble," said Sam.

Health matters are those in which it is hard to interest the people that are in ordinary health. We are like the colored fellow. Why should we worry about it? We go about our business through the day, and if we feel strong and all right,

well and good. But we *are* our brother's keepers, ladies and gentlemen, we have got to take care of the inferior. We have got to take care of the people that are not in good health, of the people that need help socially and need help in an educational way and in every way that applies to health. We *are* our brother's keepers, and we have got to do it. And the best way to do it, as we believe in Alameda, is through the health center.

Our friend here from Los Angeles said yesterday that when a man lives for himself he didn't amount to anything. And the community that lives for itself doesn't amount to anything either. We must take our places as municipalities in the state and in the nation. It does no good for one town to try to improve the health of the people. But all the cities in this state should act together to do it. And in that connection I have used the illustration of a case of small-pox in Modoc County—that it concerned Los Angeles County. It does, because we are a state, and further than that we are a nation, and we have got to get together and find some way to improve people, and each of us should add his little mite.

In line with that we have for years been going at it the wrong way. This state spends millions for insane asylums. It spends millions for homes for the feeble-minded, for blind asylums, for juvenile courts and all that sort of thing—homes for delinquent girls. I believe the proper place to begin is at the other end, and to prevent those things with a few thousand dollars rather than to spend a million to take care of them afterwards.

I venture to say that from fifty to sixty-five per cent of all the insanity in this state is preventable, if these people had known. Ignorance is the great trouble with the world. The blind

asylums need not be so full, if we would but realize that nearly all cases of blindness in this state or in this country are due to diseases that are preventable, to venereal diseases. Just stop it before the child is born, and then he won't be blind afterwards.

There is certainly logic in that. Suppose you had a very dangerous road upon the hillside over here with an awful curve, and every day or so an automobile went over there and killed people or injured them, and that you were building a fine hospital down below, connected with which were a lot of doctors and an ambulance service. Would not somebody say, "Why not build a wall around that curve?" That would certainly be the logical thing. Just apply that to health. Rather than have all these asylums and all these detention homes and that sort of thing, that we spend thousands upon thousands of dollars on, let us build a wall around the children, let us commence at the other end and see if we can't prevent the great majority of these diseases. You can do it—perhaps not in a year or two or ten years, but maybe in a generation or so we will have something to show for our efforts in that direction.

That is one thought I want to impress upon you, that manpower is the power of this nation, and we must spend hundreds of dollars on the child or on the expectant mother rather than millions on the people that come afterwards.

How this should be done is the second thing I want to bring to your attention, and this brings me to the real subject of my talk. In Alameda we have the same problems that you have in any of your towns. Before our health center was established there was a lot of talk about the need of such a thing, but the real establishment of it came about in this way: A certain number of people believed we ought

to have a day nursery—and a day nursery is a place where a woman can take her children to be kept during the day while she goes to work to support herself and support her children. Before establishing this day nursery we took a census of the town. Personally, I am opposed to a day nursery, because anything that disrupts the home, anything that takes the child away from the mother or separates the child from the mother and parents is bad for our society. I believe you will all agree with that. When a woman leaves her child at 7 o'clock in the morning and is gone all day and leaves someone to take care of that child in a haphazard way, coming home at night to put the child to bed without knowing how it has been fed—that, I believe, is bad. So we took a census to find out why it was necessary in Alameda to establish a day nursery, and we found out this—and you will find it in every case—that in the large majority of instances where they need help, where a woman has to leave her child or children in somebody's care, that somebody is sick. Your social problems, a large percentage of them, when you have to give grocery orders when you had to give county help or have to appeal to some society or organization to get money to help, when they can't pay their gas bills and their rent bill, if you get to the bottom of it you will find that somebody is sick, and it is usually the wage-earner who is sick. So, if you can keep people in health, you have solved more or less of your social problems.

And it was with a recognition of these facts that our health center was established. It was in May, 1920, that the movement to establish the day nursery started, and upon a careful examination of the homes it was found out that this day nursery was necessary because somebody was sick. We then began to apply

this to all of our other social problems. And we decided that a health center, a thing that would incorporate all of our sickness and all of our social service workers, bring them all together under one building, would, in a way, solve our problem.

The purpose of our health center, and I will have to read that because it is copied from the constitution, is to increase the efficiency of public health, relief, and welfare work, eliminate duplication of effort (that is important)—maybe in some cities you will have an association of charities, you will have lodges working, you will have this, that, and the other, so that a fellow can get help from each one of them and make a fairly good salary. But you want to bring those all under one head, and have a clearing house for it, and it is a great economical improvement. So the purpose was stated, as I was just reading, to increase the efficiency of public health, relief and welfare work, and to eliminate duplication of effort by consolidation and co-ordination of all those different things, to maintain clinics and furnish medical treatment and advice for such persons as are unable to pay for the same, and to disseminate knowledge and to educate the public in preventive medicine, to co-operate with the health department of the city, the public health department of the county, and other institutions and agencies in the neighborhood—bringing together all of those forces under one roof, and, if possible, under one head.

So, after a number of meetings, Mr. Hewes being our city manager, we had a called meeting of the interested citizens and after a number of such meetings at which we pointed out to these various agencies the advantage of consolidation, we finally formed our health center.

I think our plan of procedure was a good one. First of all we called together the people interested. We wanted to

make it as democratic and far-reaching as possible, so we notified every lodge, every church, every union, every social service and every charitable institution to send a delegate there with us. There were 87 or 89 different names on our list, and their representatives constitute at the present time our Board of Trustees. So if the Methodist Church wants a representative they can have it, likewise the Catholic Church, or the Elks, or the Masons, or the Carpenter's Union, and so on. Then they can feel that they are part of us, and that way we have a widely representative board of trustees.

This board of trustees does not meet very frequently—you see it is a large body and more or less unwieldy—so they elect a president, a vice-president, a secretary and treasurer. The president appoints a social service committee, which consists of five people. He also appoints a financial committee of five members, and a propaganda committee of five members. These committees are selected with much care. In the brief space of time in which I have to talk I will not enlarge upon this, for you know what a social service committee is, likewise a financial committee and a committee on propaganda. It is the last committee that gets in touch with the newspapers and spreads the news around about the activities of the center. The financial committee of course has to raise the money. The social service committee has to go out among the needy and sick people, and find out just what they require.

But that does not entirely fill the needs, and so, as a principal factor, we have an executive committee that consists of eight members and the president, and each one of this committee is one of the members of the larger committee. In addition, the officers which are appointed to the health center, there is the chairman of the standing committee and one member at large, the total num-

ber on the executive board being eight. The president is also the president of the executive board as well as of the executive committee.

It takes a great deal of thought and time to work that out, and I hope you understand it. Here we have represented the medical boards, and these are the doctors that run a clinic. They really have no connection with it, except in an advisory way in running the clinic.

Another thing we thought advisable was not to have a doctor in the executive board. We found that doctors get a little bit jealous among themselves, so we use the nurse and the social service worker instead. We have a full time public health nurse on this committee, a part time social service worker, and a part time clerk, and they are really the ones that run the affairs of the center.

I want to tell you just how we manage to avoid being imposed upon. While this health center is not the social service part of our city, the social service worker for the social service committee is also the one that every person must go to who enters the clinic. And a complete history is taken of each case. Where anyone goes there for treatment, or anyone goes there for help, we have this blank which you probably have in other places, and that is filled in, such information being given as to how much the wage earners make, how much they take in in that family and how much they spend; who has tonsils, and this, that, and the other, so it all works in great harmony.

You may ask where we get the money to run the center. The first help we got was from the Alameda City Council. Then the Alameda Chapter of the Red Cross decided to help us out. Then the Alameda County Board of Supervisors, then the Alameda schools, and then private subscriptions, and anyone who wants to belong may do so—I believe our membership is a dollar, a nominal

membership fee, while, if you want to go a little stronger, there is a five-dollar membership. A life membership is \$100. We expect next year to spend \$8,000, which is very reasonable for a town of 30,000 people. We find that we have saved a great deal of money in running this health center in that way.

I believe I have touched on all the subjects of general interest in this brief talk. I hope you will go home with these ideas: First, that the strength of this nation is in its man-power, and, second, that your social service and your problems where you have to help other people are largely dependent upon health. You will find that in the families requiring help, almost unerringly somebody is sick.

Now, I hope these few words to you councilmen, trustees, city managers and municipal officials generally, will have some weight when you go back home. And let me say to you that if you will write a letter to our secretary, you can get all the information on our health center that you may want. We get letters from all over the country—Chicago, Detroit and other eastern points, as well as various places in California, to know how we run this health center. I hope that we may be of some assistance to the cities of California who have like problems.

Ladies and gentlemen, I thank you for your attention. (Applause).

Chairman Griffin: I think you will agree with me that Dr. Hieronymus has presented quite a bit of food for thought, and that we owe him a vote of thanks for his presentation of a very interesting subject. I have been myself personally too much wrapped up in other matters to put enough thought on this subject, but I am sorry that I have been so much in the position of the negro of whom the doctor spoke, and I promise him that I shall get out of that rut.

Mr. Hewes: Before Dr. Hieronymus leaves the platform, it might be well for him to give us an idea of the number of clinics that are being operated, about the number of entrants in the health center, and what work they have accomplished.

Dr. Hieronymus: I intended to, Mr. Hewes, but I saw I was getting my talk a little bit long, and so desisted. We have a clinic in general medicine—and to those of you who do not know what “general medicine” is, I will say that it is simply those general cases of sickness that come in, and usually that is the distributing point, because the doctors there may find that it has to be transferred to some other clinic. Then we have general surgery, that makes two, and the eye is the third, the ear is the fourth, the nose and throat the fifth, diseases of children the sixth, and orthopedics, having to do with crippled children, is the seventh; gynecology and obstetrics, which deals with the diseases of women and with child birth and also pre-natal instructions makes the eighth. We talk to women that are pregnant, telling them how to live to have better children. Then as a ninth, there is the clinic on skin and venereal diseases. And once a year we have, as the tenth, the dental clinic. So you see we cover quite a good deal of ground that way.

Then as to the number: We see about two hundred cases a month. I don't know where these people went before. Many of them didn't go anywhere. The children simply had bad teeth, or they had bad tonsils, or they were hunchbacks, or had bent legs or had venereal diseases; and they went on producing diseases, which comes back to the point that in the next generation you will have to support them in the poorhouse or in the insane asylum, and that is what we are trying to stop. About two hundred a month is what we have.

Question: May I ask how your physicians are supplied? Do they give their services gratis or are they paid?

Dr. Hieronymus: We have a medical board which consists of all the doctors in town who belong to the State Medical Association. We do not take anybody who is not a member of that organization. They give their services gratis, an hour or two a week, as the case may be. The doctors objected to this thing for a while when it started, because they thought it was going to take business from them. But they found out that this clinic does the work that they used to have to do for nothing anyhow. I was informed that the dentists of a certain town were opposed to a health center in a town where the speaker lived, because they thought they would lose business. But I say to you that the people who are investigated under the social service cannot pay a dentist anyhow, and if they go to the dentist's office at all, they just simply spoil engagements that he might otherwise keep.

Mr. Hewes: Another thing I want to bring out, doctor. When we started this work in Alameda it was said that Alameda being a residential city, and not strictly an industrial city, it would not have a sufficient number of cases to carry on the work. You might enlighten us upon that if you will.

Dr. Hieronymus: We have 31,000 people and we have 200 cases a month. I don't believe there is any place where they do not need a health center. I went through Hollywood and Beverley Hills the other day. Possibly they don't need much social service work there—but I doubt it.

I might add that there is a good deal of opposition to health centers in some cities, and if anyone desires to ask any questions, I shall be very glad to answer them if I am able. We started on March

15, 1921, and we found many obstacles to meet and overcome. The doctors had to be brought in line, the dentists had to be brought in line, and then the jealousy between the different social service agencies, such as the Alameda County Associated Charities, the Catholic Ladies Aid, the German Ladies Relief Society and the different organizations of that type. But I think the situation with us all goes to show that if we can get these people to co-operate, we are going to save a lot of money. I want to say that all of these organizations are not affiliated with us yet, and the ideal at which we are aiming is to get them all. It will at once be apparent to you that this lack of co-ordination in the having of different agencies handle the same work, takes away from efficiency. On the other hand, we have now so many and such a very large part of the organizations working together and co-operating that we are saving money. Yet it is hard to get such organizations into line. I have just a little dream in connection with health centers. Many towns in the country are building memorials to our soldiers or talking about it, and some have put up granite slabs or have erected school houses and named them memorial schools. But can you imagine a grander thing to do than to put up a fine public building in your town as a memorial to the boys that went over to France, or those that didn't go but were willing to go, and in this memorial building have your emergency hospital, your clinics, your social service work, your screen to instruct people in health matters, your pre-natal talks and your clinics for measuring and weighing children, giving your baby child a chance. Can you imagine a grander monument than that to the boys who went over to France? Think it over.

Question: Can you give us some idea

about the monthly expense to the city?

Dr. Hieronymus: We have asked for \$8,000 the next year. \$8,000 in twelve months is about \$666.67 a month, and that is about what it costs us. The City Council first gave us \$500, and we had a little bit of a building to start this thing with. Then we sold life memberships at \$100, and we were really surprised to see the way the money came in—Mr. Hewes can tell you the enthusiasm there was.

Question: Did you make any tabulation to find out how the amount compared with the money spent by the different organizations before you started in?

Dr. Hieronymus: I think there would be no way of finding out. I could not tell you how much they spent. Another thing that helped just along that line: There is always a drive on, some fellow comes in and says, "We want \$5 for this," and another one says, "We want \$10 for that," and next week somebody wants \$2 for this and \$4 for that, and so on. Under our plan we can say, "You give to our social service worker, and you put up what you think you can, and that will be the end of it." We tell these organizations co-operating with us, "We will investigate the case for you." The Red Cross gives us the money that they used to spend outside. The Red Cross says, "You get Mrs. So and So, she is a wonderful woman, a social service worker, and she will investigate this, and if this is necessary, we will see that you get the money"—meaning to see that they do not impose upon us. Before there was no clearing house. Now we have the clearing house.

Question: In a county with a sparse population, and already having a county health center at the county seat, do you think it would be advisable as well to have a municipal health center?

Dr. Hieronymus: No. You will find in such a case that the county health center is more advisable with the little units that go to make up the county. I would say that the center at the county seat with units in various places, would be the best way to handle that situation.

Question: How do you get any money from the schools? We are considering just such a proposition.

Dr. Hieronymus: We did it, and it was a surprise to us.

Question: Do you make an inspection of the school children?

Dr. Hieronymus: We have a school nurse. That is one of the fields that ought to be covered. I believe the school nurse should be in the health department and not under the school board. While in our case the school nurse is not under our control, yet they work in co-operation with us, absolutely. But I repeat, I believe the school nurse in any town should be under the health officer or under the department of health and not under the board of education. We are living in hope that when we get a memorial building of the type I mention, we will have all of these functions brought together under one roof.

Question: Have you a county center there as well?

Dr. Hieronymus: Yes, there is a county health center. We co-operate with them.

Question: What portion of the \$8,000 you mention do you raise by taxation?

Dr. Hieronymus: The only amount we get is the amount set aside by the City Council for social service, and, having the same people on the social service board as on the other, that money can be used very well. We also get from the county an allowance which comes through the Alameda County Board of Supervisors, and goes to the social service work. But, as I told you,

in the beginning nearly all social service work is dependent upon gifts.

Mr. Hewes: There is one other thing I would like to bring out for the information of the members here personally, and that is the idea of tying this Alameda health center in with the general county scheme. There is in the County of Alameda a health center, and the plan is to tie the health centers of Alameda, Oakland, Berkeley and other cities to the county health center.

Dr. Hieronymus: I might add that in Alameda County there is a welfare council. The Berkeley organization, which is called the Berkeley Charities, is a unit in that council and has two representatives on it. Oakland has the Oakland Associated Charities. They send two representatives. And the Alameda Social Service Board, which is a part of our health center, sends two. Once a month this Alameda County Welfare Council meets, and our two representatives, and the two representatives of Oakland and those of Berkeley, the only such organizations now actually in existence in the county, get together and talk over what is being done in the different places. We have found that sometimes a person will live in Oakland and go to Alameda and try to get help, or, living in Alameda, he will go to Oakland and try to get help. By means of this central organization, we check them up. So I say that while we are no part of the Alameda County Health Center, we work with it. That helps out. We refer cases to them to go to the County Infirmary, and they send cases that make application to them back to our town, when they apply over there but belong to us.

Mr. Hewes: Formerly in Alameda County, as in most of the counties of the state, the welfare work was accomplished by a great number of agencies. All those agencies have been brought together

in the County Welfare Council. The idea is to finally eliminate the three commissions they have had there, and bring it all under one head, if possible. That may take time. Then they will co-ordinate the work and bring in these city centers, and other possible outside centers from other sections of the county, such as Haywards or San Leandro. While those municipal organizations would be more or less independent, still they would tie into the central body.

Dr. Hieronymus: I want to thank you very much for the consideration you have given this subject. Ordinarily I rather regret addressing an audience not specially interested in health mat-

ters, but I am greatly gratified at the interest that has been shown here. Again I invite you to come or send your representatives to the Alameda Health Center, and we will send you all the data you want on the subject. (Applause).

Chairman Griffin: I feel certain that I am not exceeding my powers when I express to Dr. Hieronymus, in the name of the League of California Municipalities, the thanks of this convention for his able presentation of this subject. As I said once before, I have been sitting on the sidelines, and figuring that it was not part of my business, but I am now convinced that it is something with which all of us should find ourselves interested to the utmost.

INTERESTING THE STOCKHOLDERS IN THE COMMUNITY'S BUSINESS

By GEORGE EVERSON

Vice-President of the American City Bureau, San Francisco.

EDITOR'S NOTE—It is an old axiom that government can proceed no further than the will of the majority. By the same token, community development may proceed no further than it is carried by the organized efforts of the citizenship. It has fallen to the province of the Chamber of Commerce to educate the citizens to community needs and to carry on unofficial propaganda for community development. In this they are the strong allies of municipal officials in working out the difficult problems that face the administration. In the following article "Interesting the Stockholders in the Community's Business," Mr. Everson has outlined the essentials of successful Chamber of Commerce organization and suggested some of the methods of successfully mobilizing the citizenship for community development.

It was 10:30 in the evening. The corridors of the high school building of the little San Joaquin Valley city were cluttered with interested groups of people talking animatedly. In passing among them one heard snatches about Community Recreation, City Planning, Development of the Farming Interests, New Community Hotel, Auto Camp ground, Clean-up Campaign, and City Manager Form of Government.

A stranger who might have happened in would have been curious as to what it was all about and, had he inquired, he would have found that the members of

the Chamber of Commerce had just been in session in small groups in various class rooms to discuss intimately what the Chamber of Commerce should undertake for the coming year, and that the people gathered around in these groups in the corridor were simply continuing the discussions that had begun in their various group meetings.

Had curiosity led the stranger further he would have found that each one of those present had turned in his written suggestions on the Chamber of Commerce program at the end of the discussion in his meeting and that these sug-

gestions would be built into a formal program of work to guide the Chamber of Commerce during the next year. In this particular instance, he would have found the following program of major activities outlined by the membership and adopted by the Board of Directors, as the guide for the Chamber's work:

1. SANITATION AND CLEAN-UP.

- (a) To conduct a clean-up campaign.
- (b) To co-operate with the city in working out plans for regular and thorough-going garbage removal.
- (c) To assist city in making plans for effective street cleaning.

2. AUTO CAMP GROUND.

- (a) To co-operate with the city in establishing and maintaining auto tourist campground.

3. COMMUNITY RECREATION.

- (a) To work out plans for the organization and support of community athletic teams, to meet teams from other valley cities.
- (b) To foster plans for general community athletics, wherein large numbers will participate.
- (c) To seek to provide more adequate facilities for community recreation, such as parks, playgrounds, tennis courts, etc.

4. HOTEL.

- (a) To work out plans for building a modern hotel for Hometown.

5. COMMUNITY BUILDING.

- (a) To foster plans for a community building for Hometown.

6. COUNTRY ROADS.

- (a) To help to secure better roads for the surrounding country.

7. CITY MAIL DELIVERY.

- (a) To foster numbering of streets and building of sidewalks so that Hometown may secure free city mail delivery.

8. BAND CONCERTS.

- (a) To help support the Hometown band, and to help repair the band stand.

9. COMMUNITY ADVERTISING.

- (a) To put an appropriate electric sign across the highway.
- (b) To pursue a judicious campaign of community advertising.

10. ELECTRICITY FOR FARMERS.

- (a) To help the farmers to get electricity for domestic use at reasonable rates.

11. CITY PLANNING.

- (a) To foster city planning for Hometown and to help work out practical zoning ordinance.

12. LADIES' REST ROOM.

- (a) To provide ladies' rest rooms and comfort station for use of farmers' wives and tourist travel.

In addition to the program outlined above, he would further have found that the other items which engaged the interest of the Chamber of Commerce were as follows: Legion building, co-operation with the farm bureau, library, industrial development, telephone service, housing, railroad facilities, gas rates, trade at home campaign, street lighting, and street improvement.

These latter, however, would need further discussion before they could be definitely put on the program of work for the year.

Continuing his inquiry further the stranger, going into the history leading up to the building of this program of work for the Chamber of Commerce, would have found that this was one of the organization services given by the American City Bureau in building a Chamber of Commerce for a community.

The American City Bureau service to Chambers of Commerce is unique.

It came into being some ten years ago and during the first year of the American City Bureau's life three Chambers of

Commerce were re-organized and put on the road to success. Since then more than four hundred Chambers of Commerce in American cities have been re-organized by the American City Bureau. The largest city to receive American City Bureau service is Cincinnati, Ohio, and the smallest is Cloverdale, California, with a population of 600.

In the State of California fifty-six communities are now receiving American City Bureau service. The aggregate annual income of these organizations has been increased more than a million dollars.

Five Essentials of Success.

In building Chambers of Commerce the American City Bureau assumes that there are five essentials to a successful organization:

1. A representative and interested membership.
2. Adequate income to carry forward the activities.
3. A definite program of work built by the membership.
4. Proven method of organization and procedure.
5. An ideal of community service.

It is these five essentials that the American City Bureau brings to Chambers of Commerce which it serves.

A Representative and Interested Membership.

In building the first essential, a live, representative, and working membership, it must be recognized that a Chamber of Commerce is an organization for the transaction of the community's business. Therefore, every interest in the community must be represented in the Chamber of Commerce. The membership can no longer be restricted to a few business men up and down the street. This membership must be educated into a thorough understanding of the purpose and functions of the

Chamber and into a knowledge of the method of carrying forward the community undertakings. Each must be made to have a feeling of individual responsibility. The membership should be as large as the community can sustain. What has been accomplished in some California cities in the way of membership to a Chamber of Commerce through American City Bureau campaigns is a revelation in the extent to which community interest can be mobilized. The Sacramento Chamber of Commerce has 1,853 members; Long Beach has 1,422 members; Merced has 510 members; Bakersfield has 550 members.

Especially has this been shown in some of the smaller California cities. In many of them it has been possible not only to bring in a large membership from the corporate limits, but the rural area has been interested and mobilized in the general community undertakings. Striking examples of this are Kingsburg with a population of 1,500, which has a membership of 351; Selma, with a population of 3,158 and a membership of 340; Paso Robles with a population of 1,919 and a membership of 450; San Luis Obispo with a population of 5,895 and a membership of 503; Ukiah with a population of 2,305 and a membership of 333; Sebastopol with a population of 1,493 and a membership of 360.

Adequate Income.

To mobilize a large membership in a Chamber of Commerce without providing it with the means for successful operation would be futile. The organization must have sufficient income in order that the membership interest and willingness to work may not be hindered through lack of funds. Communities which have re-organized Chambers of Commerce under the American City Bureau plan have set a new standard of income for carrying forward the

community's business. Following are some of the incomes that some California Chambers of Commerce are having to work with:

	Population	Income
Eureka.....	12,923	\$40,000
Sacramento.....	65,857	91,700
Long Beach.....	55,593	50,000
Bakersfield.....	18,638	29,000
Reedley.....	2,447	17,000
Kingsburg.....	1,500	13,000
Paso Robles.....	1,919	11,000
Sebastopol.....	1,493	11,600
Anaheim.....	5,526	17,800
Whittier.....	7,997	20,000

A Definite Program.

The Chamber of Commerce membership interest and income is secured for the purpose of accomplishing something for the community. Too often communities, in a burst of sentimental enthusiasm, raise large sums of money to "boost the town." Slush funds are as often gathered together for various interests of the community to fight over and too often the organizations go on the rocks because of no definite program to follow. Therefore, the third essential in a successful Chamber of Commerce is a definite program of work.

The American City Bureau feels that the membership of a Chamber of Commerce is best qualified to determine what the organization shall undertake. For that reason much time is spent and great care taken to foster constructive thought for community development in the minds of the membership and to get an expression of the best thought of the individual member as to the major community needs. This effort culminates in the meeting of the membership where everyone writes down definite suggestions after open discussion. These suggestions are built into a strong program of work, and experience has shown that a program so built is fundamentally sound and will have the united

support of the community at large and the active help of the individual members in working it out to successful accomplishment.

A program built in this manner points the finger of public attention to the outstanding community needs and outlines a broad plan of community endeavor which will enlist the interest and support of all elements. It first finds the flaws in the management of the city government and builds a plan to correct them. It picks out the outstanding community needs in the way of development, such as the formulation of the city plan, the enactment of a zoning ordinance, the planning of a civic center, the extension and improvement of the school system, better street lighting, and more paving. It pricks the bubble of unsound industrial growth and supplants it with plans for a sound industrial development through industrial surveys in line with the resources and capabilities of the community. It replaces the old slogan of "What this town needs is more factories," with a better slogan of "How can we so build our town that the better class of industries will be attracted to our city?" It emphasizes the interdependence of the interests of the city with those of the surrounding area and brings about a realization that success to both is found through working together in common undertakings. Such a program makes proper provision for satisfactory development of the cultural and recreational needs of the community. In a word, the program is built from the unselfish thoughts of men and women thinking for the best interests of the community as a whole.

Proper Method and Management.

A wise Scotchman once wrote in poetic phrase, "The best laid plans of mice and men gang aft aglie." So with a membership working out a plan for community

development—if proper methods are not employed. Battles are won because someone knows how to direct the campaign. Community programs are brought to a successful accomplishment because the secretary and the board of directors have knowledge of how to mobilize the membership in the community undertaking.

In its ten years of experience the American City Bureau has built up a fund of knowledge as to best method of organization and management. This knowledge is placed at the disposal of the board and of the secretary for their guidance in the management of the organization of committees to carry forward the program of work, in the building of the members' forum to keep the membership informed and interested, in budgeting the funds so that there will be general satisfaction on the part of the membership and that the committees carrying forward important projects will have enough money to work with, in the control of committee work so that one group shall not commit the whole organization to undertakings which have not the approval of the community, in the organization of the office to insure the maximum of efficiency, and in the general management of the election of officers and the use of the referendum to insure membership control and satisfaction at all times.

An Ideal of Community Service.

American education has been such that deep in the hearts of the majority of the citizens of any representative community is a desire for constructive

community service. The building of the ideal of community service as the dominating force in the Chamber of Commerce is therefore possible. Consequently, the most valuable portion of American City Bureau service is that which awakens this desire for community service and builds it into a guiding ideal of the organization. It is more than a sawdust trail revival. It is a campaign of education which brings to the surface the deep desires of men to build constructively and in an ideal way. Without this ideal of community service as a guide in the Chamber's undertakings all of the rest would go for naught because successful Chamber of Commerce work is dependent upon the unselfish and devoted service of many men and women working toward common ends. With this ideal firmly established men are willing to give up their time to spend days at the state capitol or in other cities pushing things in which their community is interested, and secretaries find it possible to enlist in committee service of one kind or another a major portion of the membership during the year.

The Proof of Success—Accomplishments.

The proof of the success of a Chamber of Commerce is in what it does. A comparative study of the program of work laid down by the Eureka Chamber of Commerce and a report on one year's achievements is interesting. Let us see how far the organization has lived up to the desires of the membership in the way of accomplishments:

The Program Undertaken.

- | | | |
|----------|---------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Plank 1. | Street Improvement..... | Action delayed. |
| Plank 2. | New Hotel..... | Community Hotel financed and built. |
| Plank 3. | Industrial Promotion..... | Put on industrial exposition, made industrial survey, and secured several new industries. Still working along this line. |
| Plank 4. | Junior College..... | Secured. |

The Things Done.

- Plank 5. Clean-up and Beautify.....Annual clean-up campaign carried out.
 Plank 6. Tourists' Auto Park.....Established.
 Plank 7. Improved Sidewalks.....Nothing done.
 Plank 8. Housing.....Eighty new bungalows built.
 Plank 9. Better Lighting.....Work started.
 Plank 10. Publicity.....Wide publicity program carried forward.
 Plank 11. County Roads.....Much work done in the way of road improvements.
 Plank 12. Taxes.....Nothing done.
 Plank 13. Redwood Park.....Three hundred thousand dollars state appropriation secured. Still working on campaign for large national Redwood park.
 Plank 14. City Charter Amendments..Proposed and lost. Still working.
 Plank 15. Trade at Home.....Much work done in this line.
 Plank 16. Parks and Playgrounds.....Two small parks and playgrounds secured
 Plank 17. Transportation.....Night train service between San Francisco and Eureka secured. Freight service improved.
 Plank 18. Road to Sequoia Park.....Not done.
 Plank 19. Water Supply.....Accomplished.
 Plank 20. Annual Fair.....Carried on successfully.
 Plank 21. Harbor Improvements.....Much accomplished through securing federal aid.
 Plank 22. Rural Co-operation.....Better feeling built up between Eureka and entire surrounding area.

Other Chambers of Commerce can show similar records of results. Long Beach was particularly successful in initiating and rendering material assistance in putting over city manager form of government. The Sacramento chamber secured the adoption of a new charter including the city manager form of government. According to the organization report, "Sacramento's new charter, sponsored by the chamber, has attracted world-wide attention and has been stamped by municipal government experts as the most progressive known to political science. Magazines and periodicals with wide circulation in the United States and foreign countries have featured it in comprehensive articles."

Under streets and roads in the Bakersfield Chamber of Commerce report we have the following:

Secured co-operation of county supervisors and city councilmen to the end that Oak street will be paved from the bridge to Brundage lane.

Secured co-operation of city councilmen and owners of property to the end that Sumner will be paved from King street to city limits.

Under taxation we have the following:

Arranged with Truxton Beale for consolidation of city and county libraries to take place next spring, thereby saving to city of Bakersfield some \$15,000.

Made study of city budget and made recommendations tending to reduce taxes.

In the list of forty-four accomplishments in the Santa Rosa Chamber of Commerce it is found that the organization was successful in carrying important city charter amendments, some of which effectively cleaned up an old school bond muddle which had been

hanging fire for some time. Other amendments had to do with methods of financing street improvements. Through Chamber of Commerce activities, the Luther Burbank Memorial Gardens are being established as a mecca for horticulturists.

Among other things, the Paso Robles Chamber has made a careful study of the water resources and the ability of the city to finance the extension of the water system and, in co-operation with the city government, has met the acute shortage in the water supply and has formulated plans for the development of a water system adequate for a rapidly growing population for Paso Robles.

San Luis Obispo has been successful in carrying forward a program of park development and the development of playgrounds for children, together with numerous other activities.

Similarly each of the fifty-six Chambers of Commerce in California served by the American City Bureau can show a long list of concrete results in community development.

A successfully managed Chamber of Commerce lays out its program at the beginning of the year and at the end of the year takes stock and compares this program with the actual accomplishments. Therein lies the measure of success.

A NON - TECHNICAL DISCUSSION OF THE CITY PLANNING MOVEMENT

By EDWARD GLASS

Architect, Director of Housing, Commission of Immigration and Housing of California.

TOWN PLANNING

*"This great town planning movement must not end in a few large cities getting all the talent, most of the money, and the best of all the improvements. * * * * The expanding village wants town planning as much as does the large city; the growing town clamors for town planning, but, most of all, the straggling suburb round the ever-changing city gives a stimulus whose call we ought to have answered years ago. For all these reasons, industrial, social, commercial, and imperial town planning must go hand in hand with better housing, wider roads, higher wages, and increasing sobriety."*

Right Hon. JOHN BURNS, M. P.

It is only within the past ten years that the city and town planning movement has manifested itself to any appreciable degree in this country. Its being so comparatively new makes it but natural that the public, including otherwise well-informed citizens, should be opposed to city planning ideas. There has been no popular campaign conducted in its behalf, although many statesmen, economists, and city planning experts throughout the world have shown

conclusively that our cities have, in the past, been developing along very unscientific lines. Unless this development can be properly directed, danger to the more intellectual, physical and industrial growth of communities will become grave.

However, when people understand what city planning really is they will support it as they have come to do other progressive movements.

As a concrete example of the lack of

knowledge on the part of community leaders, the newspapers recently quoted a large property owner of Fresno as saying, in a public lecture on city planning, that the city planning movement was started in this country in 1917 by German propagandists, in order to weaken our patriotism. The purpose of the lecture was to stir up opposition to the recently proposed zoning ordinance in Fresno.

Relation of Housing to City Planning. Not to meet the Fresno speaker's arguments, but to illustrate the relation between housing and city planning (which will be further developed in the course of this discussion), it may be of interest to review the work of city planners during the recent war.

In 1917 it became clearly apparent that the housing shortage was something with which our government must concern itself, since it was a great and increasing menace to the speed and continuity of production of the munitions of war. The inadequacy of housing, food, merchandise, in fact, everything relating to family and social life outside working hours, lead to a decrease in total production, in spite of increasing wages.

To take care of the situation, the United States Government had to build whole cities, and the city planner was one of the first of the technical men required to help, in order that the houses might be properly placed, the streets economically laid out, and the various units which go to make up a city rightly arranged. Through this orderly method of procedure, the maximum number of houses was easily located within a given area, at the same time maintaining an abundance of light and ventilation and view. In addition, the utmost economy of material for streets and directness of travel was made possible.

An analysis of these plans and a comparison with the plans of cities which

have grown up along the usual lines, would at once prove the extravagance, to put it mildly, of the old system.

City Planning Progress. Every city planning commission must be prepared to battle long and hard with the electorate before even the first steps in city planning can be accomplished. However, in spite of the difficulties, California and other states have made very real progress in attacking the problem.

In Massachusetts, by the acts of 1913, the establishment of planning boards is made mandatory for all towns and cities with a population in excess of 10,000.

Four laws have been enacted by the Legislature of the State of California making possible city planning in the state, without the necessity of amending city charters. There are many interesting and excellent provisions in the California laws, which are, however, too long to quote here.

Public Support Essential to Progress. The mere enactment of city planning laws, no matter how desirable, does not remove the menace of the hundreds and hundreds of unsanitary tenement houses to which the light of day never penetrates, nor will it insure against the payment of future millions of dollars for the necessary corrections of mistakes, due to haphazard layout of streets, and dangerous and flimsy construction that threatens the life of our people and costs us millions annually in fire losses.

While it is, of course, a violation of city and state laws to build in a dangerous and unsanitary manner, anyone at all familiar with the *modus operandi* of the condemnation of buildings, will understand why faulty buildings are allowed to remain. City and state inspection departments are not sufficiently equipped to cope with the situation.

For example, Los Angeles has an excellent housing department, and yet witness what Secretary F. D. Sweger says in his 1921 report:

"Many hundreds of persons are living in stables.

"Many hundreds of persons are living, many to the room, in cellars.

"Old buildings are being converted into tenements.

"There are more than 4,000 tenement houses in the city.

"Private auto camps are being used all the year round by families unable to pay extortionate rents.

"Despite the rapid building of homes, the overcrowding and congestion in the tenement districts greatly increased during the past year. These conditions are worst along East Ninth Street, Santa Fe Avenue, Macy Street, and North Main Street.

"More than 200 tenements, either fire-traps or breeding places of disease, have been razed or remodelled.

"Hundreds of old houses have been torn down to make room for industrial plants, yet the same or larger population is crowded into smaller quarters.

"There are 2,595 hotels in the city, of which many are not sanitary and desirable places to live in. So bad were conditions in the last year that property owners were forced to abate 9,223 nuisances.

"Living in squalor and wretchedness, many thousands of persons are forced, by reason of high rents to face terrible conditions."

San Francisco has a most efficient housing department which has accomplished wonderful results under Dr. Wm. Hassler and staff, and yet San Francisco is a city of many dark rooms, that it will take at least half a century to correct. San Francisco, on account of the layout of its streets, is wasting startling amounts of money daily, due

to disordered traffic, and the consequent wasteful distribution of supplies.

The City Planning Commissions of these two metropolitan cities are attacking the problems energetically and intelligently, but city planning started rather late, and the heavy price for remedial measures must be paid.

It is not sufficient to have good laws on the statute books. Laws are not laws until they are recognized as such by the majority of the people affected by them.

Organization and Procedure. The first step then, is to organize the city planning commission properly.

The members of a planning commission should be carefully chosen, they should be citizens who are fundamentally interested in the economic and social progress of their community, they should be men of affairs, but not too overburdened with their own work to devote the necessary amount of time to the work of the commission and its deliberations.

After complete organization, the commission should see to the preparation of a map of the city showing the location of all streets, parks, open spaces, and buildings. The map should be drawn to a large enough scale to be convenient for use. Too much information crowded on a small map will make it difficult to use. If the problem is a complicated one, it will be necessary to have several maps prepared, showing the different sections of the city in detail.

The next and most important step in organizing the plan is the selection of an expert. No city would now think of building its most important municipal buildings without architectural plans, and it certainly should not undertake the much more important and far-reaching work of planning a city without competent expert research, advice and direction.

This expert should know the broader social and industrial considerations of

planning a city, as well as the technical questions involved. Planning, which is the scientific arrangement of units, is the proper business of the architect. He has been thoroughly trained in the broad general principles of planning. So, if possible, the city planning expert should be an architect.

If the city in question is a fair-sized community, the expert should be required to live there until his studies are considerably advanced. This intimate planning is by far the best, for by living for even a brief period in a city, the planner can arrive at a much more accurate understanding of its needs than by any other means. Moreover, such an arrangement means that he is always available for conferences with the planning commission, and that, whenever differences of opinion or particularly knotty problems arise, they can be thrashed out immediately with a minimum of delay and danger. The planner is always at hand to explain and to help with the general education of the public to an appreciation of his plans as they develop. By the time the studies are fully prepared, the people of the community will probably be ready to accept them.

There is a further advantage of economy in having the planner live in the city while preparing his studies. Most cities of even moderate size, particularly rapidly growing cities, maintain a considerable engineering organization. It is a direct economy to make use of the existing organization for the preparation of plans, rather than to incur duplicate office expenses by maintaining the planner's office in a distant city. Most of the routine labor of preparing plans does not require more than good draftsmanship. Moreover, for the most part, local engineers will readily swing into line under the direction of the city planner. Large cities are, of course, able to maintain separate and permanent planning departments.

When the plan has been completed, the cooperation of the electorate is essential to its successful execution. If city planning is properly introduced and explained to the average citizen, he is usually sufficiently intelligent and open-minded to appreciate not only its value but its necessity. The real difficulty consists in gaining his interested attention. Men do not, as a rule, seek out abstract principles of city administration, and if they are to appreciate those principles, they must be attractively presented in such a way as to insistently demand attention.

The economy of the city plan has a powerful appeal for everyone, and if men can be shown that city planning not only saves money, but that it also prevents actual loss, then the success of city planning may be considered assured.

An example of the financial benefits to be derived from city planning is found in the report of the city of Berkeley for 1921, which is as follows:

"The zoning laws of Berkeley have created conditions whereby home owners are given a sense of security. This has brought substantial returns to the city treasury as a result of the impetus thus given building operations for which statistics can be furnished. Furthermore the topography of the city is such that industrial development on a large scale may reasonably be expected and in fact has already begun, thirty industrial establishments having already located here. At least one industry with international connections has come to Berkeley because of the protection furnished under our zone law. It has been conservatively estimated that the city's income has been increased by \$35,000 annually as a direct result of the zone laws of the city."

Defense of the City. Many people believe that the great cities are fraught with grave dangers—that the city life

HEALTH OFFICER'S SECTION

THE INFLUENZA OUTLOOK

The peak has been reached in the present outbreak of influenza. With relation to numbers of cases reported and rate of progression the outbreak is quite similar to the outbreak of 1920. If anything, the existing epidemic involves a smaller number of people than the epidemic of 1920. There is absolutely no comparison between the 1922 outbreak and that of 1918-1919, either in regard to the number of cases, severity of attack or mortality. Comparative figures, showing the progression, by weeks, of the 1918, 1919, 1920 and 1922 outbreaks follow:

	1918.	1919.	1920.	1922.
First week.....	794	12,804	1,930	1,013
Second week.....	8,040	10,546	8,407	5,238
Third week.....	28,863	11,699	14,879	12,115
Fourth week.....	45,069	21,121	14,393	11,668
Fifth week.....	39,691	19,024	10,847	.....
Sixth week.....	25,280	9,067	6,738	.....
Seventh week.....	16,021	3,548	3,627	.....
Eighth week.....	10,403	1,682	2,251	.....
Ninth week.....	7,257	696	1,018	.....
Totals.....	181,418	90,187	64,090	30,034

There was no epidemic of influenza in California last year. There was a slight increase in the number of cases of the disease reported during January and February of that year, but the disease failed to become sufficiently extensive in 1921 to justify any comparison with outbreaks of other years.

The existing epidemic is state-wide in its prevalence. More cases are being reported from the southern part of the state than from the northern part. Aside from the mild type of the disease the most outstanding feature of the 1922 outbreak lies in the large groups of cases that occur in offices, factories and stores where large numbers of individuals are in close daily association. The same

feature was conspicuous in preceding outbreaks, but in the 1922 epidemic larger numbers of persons employed in the same offices, stores or factories are taken ill at the same time. This has crippled the service in many mercantile establishments, railroad offices, telephone companies and other institutions.

It would appear, at present, that the worst of this outbreak is passed. Considerable numbers of cases will undoubtedly be reported during the coming weeks, but the worst conditions in the present outbreak have been encountered already.

Influenza is still the great mystery among epidemic diseases, but even so, it is no more mysterious than measles. The individual who learns the cause of measles will undoubtedly be able to solve the influenza mystery, for the mode of transmission and many other epidemiological factors are identical in these two diseases. There is much work to be done in correlating and adding to our knowledge concerning the respiratory infections.

Has Age of Pestilence Passed?

No. Any individual who is capable of recalling the influenza outbreak of 1918-1919 must readily admit that the fall and winter of those years were days of real pestilence. Of this, Dr. Victor C. Vaughn says: "We are inclined to boast that the age of pestilence has passed, but with a fair acquaintance with the history of epidemics, I dare say that the world has never before known a pestilence more widespread, more intensive and appalling in its progress, or more destructive to life than

the epidemic of influenza which apparently came into being and grew in violence as the World War passed through its final stages. It seemed that Nature gathered together all her strength and demonstrated to man how puny and insignificant he and his forces are, with all their murderous machinery, in the destruction of his fellows. We have not passed beyond the age of pestilence. Much has been done in man's struggle against disease, but greater things are to be done. There has been no armistice signed between man and disease. Influenza, pneumonia, cerebrospinal meningitis, poliomyelitis and tuberculosis are still using weapons against which our defense is quite inadequate. They employ strategy in approach and attack which we do not fully understand. In the war against epidemic disease we must not permit the elation due to past victories to make us less careful and thorough in preparation for battles of the future."

Epidemiology and Public Health.

"The more of epidemiology we know and practice the smaller will be the numbers involved in an epidemic. Every practitioner of medicine owes it to his individual patient to do the best he can to restore him to health, but if the disease is an infectious one, the same practitioner owes a greater debt to the community in which the patient lives, and that is to protect the community from the spread of the disease. It may be asked how many cases of a given disease must appear in a given community before the presence of an epidemic should be recognized. Every case of infectious disease should be regarded as a possible source of an epidemic.

We must not only study epidemic disease when it appears, but we must know

this science so well that we shall be able to prevent the occurrence of epidemic diseases. The epidemics of smallpox, typhus and typhoid fever in the past have given us such full and detached information concerning the nature and transmission of these diseases that now, whenever this knowledge is constantly and properly applied, they are negligible factors as causes of morbidity and mortality even in unusual assemblies of men. We must study the history of epidemics, because from this source we acquire information of the greatest value, but this information is useless unless we are able to make proper application of it. The aim of the medical profession is to reduce morbidity and mortality to a minimum. While all diseases are not infectious, there remains much to be done in the control of the agencies, which, even up to the present time, contribute so largely to the sickness and death rates."

"The discovery of the bacterial and protozoal causes of disease merely constitutes the foundation upon which we must build. The foundations have been laid, but the superstructure awaits the energy, skill and intelligence of this and coming generations. Forty years ago it was believed that by sanitation we would remove the danger from the infectious diseases. The sanitary engineer has accomplished great things. He has drained malarial marshes, sewered our cities, provided means for the destruction of our garbage, greatly reduced both morbidity and mortality, and made conditions of life more pleasing. The diagnostic skill of our physicians has been aided by the discovery and application of scientific instruments of precision. The fruits of physical, chemical and biologic research have been abundant and nourishing. Notwithstanding all these advances, there is much to be done. Thirty years ago we believed that the infectious

diseases are transmitted directly from the sick to the well. Then we were convinced that in order to stamp out an epidemic it was only necessary to isolate the infected. Now we know that most infections are distributed by those who are in apparent health. The man who is sick at home or in hospital with typhoid fever, or cerebrospinal meningitis may be dangerous to those immediately about him, but there is little probability that he will scatter the seeds of the disease from which he suffers, in the community at large. It is the carrier

of diphtheria, typhoid fever, or other infectious disease, who is the greatest and most ubiquitous distributor of disease. Most of the bacteria which infect man grow naturally only in man's body, but they do not cause disease in all who carry them. The science of bacteriology wears quite a different aspect and its teachings are quite widely different from those which we learned even twenty years ago."

VICTOR C. VAUGHN, M. D.

(In the Weekly Bulletin, California State Board of Health.)

SOUTHERN CALIFORNIA CITIES REQUEST IMMEDIATE ACTION ON BOULDER CANYON PROJECT

Mr. Wm. J. Locke,
Executive Secretary,
League of California Municipalities,
Pacific Building,
San Francisco, Cal.

March 10, 1922.

Dear Sir:

I am enclosing copy of resolution adopted by the Southern Section of the League of California Municipalities and representatives of farm bureaus and districts at the meeting which was held at Alhambra March 9, 1922.

Yours very truly,

GRANT M. LORRAINE,
City Manager.

Resolution No.

Resolution of the Southern Section of the League of California Municipalities, Farm Bureaus and Irrigation Districts Relating to the Development of the Colorado River

Whereas, the report of Secretary of the Interior A. B. Fall, transmitting the recommendation of Director of the Reclamation Service, A. P. Davis, to the Federal Congress, indicates that the Boulder Canyon Dam project is an essential element in any comprehensive plan for the development of the Colorado River for flood protection and irrigation;

And Whereas, said report contains a recommendation for immediate Congressional action;

And Whereas, engineering work on the said Boulder Canyon Dam project and the proposed All-American Canal has reached a point from which it may rapidly proceed to actual construction work and is now ready for Congressional action;

And Whereas, it is imperative that prompt action be taken to prevent the destruction by flood of the lower Colorado River basin;

And Whereas, the secondary questions of distribution and apportionment of irrigation water, except insofar as such questions are involved in the Boulder

Canyon Dam project and development incidentally thereto, have not as yet received the careful study and investigation which will be necessary before any just apportionment can be made or construction work commenced thereon, and these questions involve conflicting interests and numerous legal engineering and economic phases which may be most equitably determined by the authority of the Federal Government.

Now Therefore Be It Resolved, that it is the sense of this body to urge upon Secretary of Commerce Hoover, the Colorado River Commission and the State Engineer of California, W. F. McClure, the imperative necessity of immediate action to carry into effect the Boulder Canyon Dam project and the construction of the All-American Canal, leaving all other questions, excepting those relating to and incidental to said projects, in abeyance for careful investigation and future determination, and further that the Secretary of this body be authorized and directed to transmit a copy of this resolution to Secretary of Commerce Hoover, the presiding officer of the Colorado River Commission and State Engineer, W. F. McClure.

Signed and approved this 9th day of March, 1922.

JOHN L. BACON,
Chairman.

Attest:

GRANT M. LORRAINE,
Secretary.

REDONDO BEACH TAKES A RAP AT THE RAILROAD COMMISSION

Redondo Beach, Cal.
March 13, 1922.

Pacific Municipalities,
Pacific Building,
San Francisco, Cal.

Gentlemen:

The Board of Trustees of the City of Redondo Beach on the 3rd day of January, 1922, passed a motion at a regular meeting on said date favoring the abolishing of the Railroad Commission of the State of California as an unnecessary expense, and as not properly meeting the situation now existing in the State of California, and that the work which is now performed by such Commission be henceforth taken care of by the Superior Courts of the respective counties. This motion was

unanimously adopted by the Board of Trustees.

Again at the meeting of the Board of Trustees on the 6th day of February, 1922, there was another motion passed that the City of Redondo Beach secure the aid of the League of Municipalities in the fight to abolish the Railroad Commission. This motion was also adopted by the unanimous vote of the Board of Trustees.

In accordance with the above motions I am herewith writing you in order that the action of the Board of Trustees may receive space in the Pacific Municipalities so that the other cities may see where Redondo Beach stands as to its position relative to the Railroad Commission.

Yours very truly,
HARRY POLGLASE,
City Clerk.

NEW JERSEY UTILITY COMPANY IGNORES THE STATE COURTS

New Jersey State League of Municipalities,
February 28, 1922.

Mr. William J. Locke, Secretary,
League of California Municipalities,
Pacific Building,
San Francisco, Cal.

My Dear Mr. Locke:

The principle of state regulation of public utilities and state sovereignty in this regard is in serious danger in New Jersey. Upon the outcome of an amendment to the Federal Statutes being sought by the New Jersey Utilities Board depends the future of state utility regulation in your own state. The letter enclosed herewith will explain the situation.

To pass this amendment over the opposition of well organized interested groups will take all the support of public-minded groups that we can get. Can we count upon your organization and its individual members for support?

I have been unable to obtain copies of this bill but hope to send one in the near future. Meantime, please use your best offices in getting an official statement in this matter. There will probably be a hearing in about two weeks.

The form of support which I should like from your organization is as follows:

- (1) An official statement by your committee to be sent to me for presentation at the hearing.
- (2) Copies of the same to be sent by you to your representatives in Congress.
- (3) State-wide publicity to be given to the same.
- (4) Resolutions by governing bodies of your individual cities to be handled in each of these three ways.

I am sure that you will appreciate the importance of this matter to your own municipalities and trust that we may have your hearty support. Please let me know at an early date what I may expect.

Yours very truly,

SEDLEY H. PHINNEY,
Executive Secretary.

The bill referred to by Mr. Phinney reads as follows:

67TH CONGRESS, 2d Session, **H. R. 10212.**

A BILL.

To supplement and amend an Act entitled "An Act to codify, revise, and amend the laws relating to the judiciary" (Act of March 3, 1911, chapter 231), and known as the Judicial Code, and to limit the jurisdiction of district and circuit courts in certain cases.

By Mr. BACHARACH

January 31, 1922.—Referred to the Committee on the Judiciary and ordered to be printed.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That no district or circuit court of the United States or judge thereof shall have jurisdiction to entertain any bill of complaint to suspend or restrain the enforcement, operation, or execution of any order made by an administrative board or commission in any State, acting under and pursuant to the statutes of such State, where such order was made after hearing upon notice, nor to entertain jurisdiction of any bill of complaint to suspend or restrain the enforcement, operation, or execution of the statute under which such order was made in any case where under the statutes of that State provision is made for a judicial review of such order upon the law and the facts: *Provided,* That nothing herein contained shall limit or affect in any manner the jurisdiction of district and circuit courts of the United States and judges thereof in matters affecting interstate commerce, nor to prohibit such court or courts or the judges thereof from entertaining any bill of complaint to suspend or restrain the enforcement, operation, or execution of any order made by an administrative board or commission in any State in so far as such order affects interstate commerce.

Copy of Letter Sent by the New Jersey State Board of Public Utility Commissioners to Every State Public Utility Commission in the United States

Dear Sir:

The enclosed bill H. R. 10,212, has been introduced in the House of Representatives at Washington by Hon. Isaac Bacharach, Representative in Congress from New Jersey. It limits the jurisdiction now assumed by United States District and Circuit judges of the power to set aside and nullify a judicial determination of a State Public Utility Commission in any case where a right of appeal or review is given by the laws of the State. The bill is intended to protect State sovereignty in matters of purely intra-state concern.

We were led to ask Congressman Bacharach to introduce this bill because of the action of the largest utility corporation of this State in a recent case decided by the Board. The case involved the determination of street railway rates in a territory comprising two-thirds of the population of the State. It was pending for two years and nearly 14,000 pages of testimony were taken. The Board by a unanimous decision, fixed a rate. The State statute under which the Board is created gave to the utility the right of review by the Supreme Court and of appeal to the Court of Last Resort, the Court of Errors and Appeals of the State. Of course, it also had the right of appeal from the latter court to the United States Supreme Court on constitutional questions. The utility in question ignored the courts of the State and made an ex parte application upon affidavits to a United States District Judge for an injunction restraining the Board from carrying out its order, although the order of the Board made no reduction in rates. On this ex parte application an injunction was granted. It was subsequently vacated but again granted on a hearing on affidavits, after the District Judge had called in two other judges as provided by Section 266 of the Federal Judicial Code, one of the other judges voting with the District Judge. The record in the case, upon which the Board made its decision was not admitted in evidence. On this hearing of a summary character the utility corporation was authorized by the Court to fix a rate in excess of that allowed by the Utility Commission. It is true the Court made an effort to safeguard the public in the event of their ruling being set aside, by requiring the company to give rebate coupons to riders for the excess fare, but this effort is futile because the company's employees make no attempt to carry out this part of the court's order and few, if any, riders obtain the rebate coupons. The result will be, of course, that by the time the Judges' decision in the case can be reviewed, the company will have collected a large sum of money, which it will retain, no matter how the case is decided eventually. The New Jersey Utility Commission is contesting the case in the United States Court, but there is no probability of any final decision for a year and a half or two years.

You can readily see that what has been done in New Jersey may be done in your State. It is needless to point out that if utility corporations engaged in purely intra-state business are permitted to over-ride the State Utility Commission's judicial determination, repudiate the orderly and adequate State procedure for review by the State Courts of State Commission's orders and to obtain from a Federal District Judge not only an injunction against the fixing of a rate by a utility commission but an order authorizing a rate which the Federal Judge thinks permissible, it will be but a question of time when not alone in the State of New Jersey, but in your State and in every State that same practice will be followed by utility corporations. Thus regulation by the State of its own utility corporations will have passed out of the hands of the State and into the hands of the Federal District Court. Utility corporations will then have accomplished in this way what they have long sought, namely, the destruction of State regulation.

Knowing that you will fully appreciate the danger threatening State regulatory bodies and the necessity of preserving State sovereignty in the regulation of purely intra-state utilities, I trust that you will bring this matter to the attention of your colleagues in your State Commission, and that you and they will use all

efforts to induce your representatives in Congress to support this bill and secure its passage. I should add that the Governor of New Jersey intends to write the Governors of the other States requesting their co-operation in the matter.

Very truly yours,

NEW JERSEY STATE BOARD OF
PUBLIC UTILITY COMMISSIONERS.

The subject matter of the foregoing communications is of great importance to every city and town in the country.

If our State courts are to be ignored as they were in New Jersey, and the utility companies are allowed to go directly to the Federal Courts, it will result in a centralization of power that is liable to be fraught with dangerous consequences.

As city officials you are urged to give the matter serious consideration, and if you conclude that the suggestions contained in Mr. Phinney's letter are timely and appropriate, it will be advisable to pass such resolutions as you deem most suitable and forward certified copies to your representatives in Congress.

COMPARATIVE INSTALLATION COSTS OF CONCRETE AND CORRUGATED PIPE ON THREE STATE HIGHWAY JOBS

That the labor costs for hauling and placing corrugated pipe are considerably less than those in connection with reinforced concrete is perfectly obvious from a comparison of the weights per foot of the two types; but just how wide the difference is has been a matter of conjecture, since definite figures were lacking. The weights, according to California Highway Commission standards are as follows:

	Corrugated Pipe	Reinforced Concrete Pipe
Diameter	Weight per ft.	Weight per ft.
12"	10.8 lbs.	90 lbs.
18"	15.7 lbs.	146 lbs.
24"	20.7 lbs.	200 lbs.
30"	31.9 lbs.	355 lbs.
36"	38.1 lbs.	507 lbs.

Figures just at hand in connection with three recent State Highway grading contracts throw quite a little light on the matter of installation

costs. Bids were called for on an alternate basis, the pipe to be either corrugated iron or concrete according to later decision of the Commission. The Highway Commission was to supply the pipe in either case, and deliver it to the railroad station nearest the work, so the calculations of the contractors were confined to hauling, installing and back-filling. The figures of the successful bidders were as follows:

6.1 miles of highway in Santa Barbara County, between Cuyumaca River and Buckhorn Creek. The Warren Construction Co., successful bidders.

Cost of Installing Per Foot

Dia.	No. Feet	Corrugated	
		Concrete	Iron
12"	1,004	\$1.75	\$.75
18"	1,662	2.50	1.00
24"	428	3.00	1.25
36"	132	5.00	2.00

5.7 miles in Mariposa County, between Sierra National Forest and Briceburg. Rhodes & Price, successful bidders.

Corrugated			
Dia.	No. Feet	Concrete	Iron
12"	1,232	\$2.00	\$.80
18"	550	2.50	1.00
24"	300	3.50	1.20
30"	682	5.00	1.30

16.8 miles in Santa Clara County, between San Felipe and Eastern Boundary. Rhodes & Price, successful bidders.

Corrugated			
Dia.	No. Feet	Concrete	Iron
12"	2,120	\$2.00	\$.70
15"	816	2.50	.75
18"	840	3.00	.80
24"	498	4.00	.90

These jobs ran from \$150,000.00 to \$400,000.00 each, and many contractors bid on each of them. The figures of the successful bidders may therefore be considered fairly indicative.

B. G. MARSHALL.

RECENT COURT DECISIONS OF INTEREST TO MUNICIPALITIES.

Municipal Corporations.

Municipal Corporations—Disincorporation of City of Sixth Class—Petition Based on Votes Cast at Election for Incorporation of City—Sufficiency of Petition— A petition for the disincorporation of a city of the sixth class is sufficient under the Municipal Corporation Act (Stats. 1895, p. 115), where it is signed by more than half of the qualified electors thereof, as shown by the vote cast at the last municipal election held therein, even though the only election held prior to the filing of the petition affecting or appertaining to said city was the election at which the question of the incorporation of the city as a corporation was voted upon.

Watson v. Fouch, 37 Cal. App. Dec. 6.

Consolidation Act—Consolidation of Municipal Corporations—Assumption of Bonded Indebtedness— Under Section 5 of the Consolidation Act there may be a consolidation of municipal corporations without any assumption of existing bonded indebtedness, or with the assumption of all existing bonded indebtedness, or with an assumption of only a part of the existing bonded indebtedness; and where the consolidation is to result in the assumption of all or a part of the existing bonded indebtedness, it is an essential part of the proposition to be voted on, to state the condition of the bonded indebtedness to be assumed.

Fawkes v. City of Burbank, 37 Cal. App. Dec. 181.

Municipal Corporations—Organization Within County—Withdrawal from County Legislative Control— When a municipality is organized within the boundaries of a county the territory embraced within the limits of such municipal corporation is withdrawn from the legislative control of the county as to all the subjects which the charter of such municipality declares shall be cognizable by the governing board or other authorities of such municipal corporation.

In re Knight, 36 Cal. App. Dec. 903.

Id.—Passage of Penal Laws—Powers of Municipal Corporation— A municipal corporation has the power to make penal an act which has already been made penal by a state law, so long as there is nothing in the ordinance making the act penal in conflict with a general law of the state, and when this is done such act becomes a separate offense against the state and the municipality. *Id.*

Municipal Corporations—Assault by Employee in Course of Employment—Liability of City— Where a city engaged in the business of supplying electricity to its inhabitants directed one of its meter-setters to wire a certain building and set meters therein, and such employee in forcing his way into the building com-

mitted an assault upon the person in charge, who resisted his entrance, the city is liable, regardless of whether the assault was authorized by the city or was committed in violation of instructions.

Ruppe v. The City of Los Angeles, 62 Cal. Dec. 50.

Municipal Corporations—Trial of Charges Against County Engineer—Preferment of by Member of Board of Supervisors—Disqualification of Member—A member of the board of supervisors of a county is not disqualified from sitting, as such member, in the trial of charges, involving dereliction of duty, against a county engineer, appointed by said board under the act of the legislature (Stats. 1919, p. 1920), because of his action in preferring and his activity in prosecuting said charges.

Butler v. Scholefield, 36 Cal. App. Dec. 169.

Id.—Trials of Officers and Employees of Municipality—Inapplicability of Rules Pertaining to Judicial Tribunals—The trial of charges against an officer or employee of a municipality or county is not controlled by or subject to the rules that appertain to judicial tribunals, where the legislature has expressly given the governing body of the municipality or the county the exclusive cognizance or jurisdiction of such trial, and the law creating such body the exclusive tribunal by which such trial should be had makes no provision for disqualifying a member from acting upon the ground that he is biased or prejudiced against the officer or employee on trial.

Id.

Municipal Corporations—License Tax of Auctioneers—Ordinance Not Discriminatory—A municipal ordinance requiring persons selling or offering for sale at public auction any real estate, livestock, or second-hand goods to pay a license tax of \$50 per year, and requiring persons selling or offering for sale at public auction any other property the sum of \$10 per day, is not void as being discriminatory.

In re Bruce, 36 Cal. App. Dec. 221.

Municipal Corporations—Acquisition of Municipal Water System by City of Sixth Class—Right to Follow Procedure Prescribed by Public Utilities Act—A city of the sixth class is not limited by the terms of the Municipal Corporations Act under which it is incorporated, from adopting the procedure prescribed by the Public Utilities Act, approved June 6, 1913, for the acquisition of a privately owned water system for the purpose of supplying its inhabitants with water.

Kane v. Wedell, 36 Cal. App. Dec. 391.

Id.—Creation of Assessment District Coterminous With City Boundaries—Power of Board of Trustees of City of Sixth Class—The board of trustees of a city of the sixth class, having the power under the Public Utilities Act to acquire by either construction or purchase a municipal water system, has also the power to create an assessment district coterminous with the boundaries of said city if the proposed public improvement is to be for the benefit of all of its inhabitants.

Id.

Ordinances—Solicitation of Custom and Patronage—Declaration of Urgency of Enactment—Truth of Matters Contained in Ordinance—Referendum Petitions—Mandamus—Where a city ordinance prohibited the solicitation of custom and patronage in certain places, and declared that the enactment thereof was urgently required for the immediate preservation of the public health, peace and safety, because there was no ordinance in force at the time of its passage upon the same subject, a petition for a writ of mandate to compel the city clerk to accept referendary petitions against the enactment did not adequately controvert the declaration in the ordinance to the effect that there was no ordinance in force upon the same subject, where there was no attempt to show by affirmative allegation what ordinances were in force upon the subject in question.

Glascok v. Wilde, 36 Cal. App. Dec. 394.

Id.—Los Angeles City Ordinance—Urgency Measure—Compliance With Charter Requirements—Where the city council of Los Angeles passed an ordinance prohibiting the solicitation of custom and patronage in certain places, and wherein

it was declared that the enactment thereof was urgent because there was no ordinance in force at the time of its passage upon the same subject, and such declaration was true, a case of urgency was made out to satisfy the requirement of the city charter permitting urgency measures to take effect sooner than other measures.

Id.

Municipal Corporations—Sacramento City Charter—Referendum—Applicability to Ordinances Involving Exercise of Legislative Power—The provisions of the charter of the city of Sacramento, relating to the referendum, are applicable only to ordinances and resolutions which constitute an exercise of legislative power.

McKevitt v. The City of Sacramento, 36 Cal. App. Dec. 640.

Id.—Legislative Power—What Constitutes—Acts constituting a declaration of public purpose, and making provision for ways and means of its accomplishment, may be generally classified as calling for the exercise of legislative power.

Id.

Id.—Administrative Power—What Acts Constitute—Acts which are to be deemed as acts of administration, and classed among those governmental powers properly assigned to the executive department, are those which are necessary to be done to carry out legislative policies and purposes already declared by the legislative body, or such as are devolved upon it by the organic law of its existence.

Id.

Id.—Bequest of Money to City for Public Park—Acceptance of Offer of Land—Exercise of Administrative Power—Acts Not Subject to Referendum—The matter of purchase by a city of a park site in accordance with the terms of a will of an individual, leaving a specified sum of money to the city, in trust, to purchase a public park to be named after the testator, and authorizing the mayor and board of trustees to expend so much of the bequest as might be necessary for the purchase of ground suitable for a public park, and to expend the balance of the fund in properly equipping the same for park purposes, involves the exercise of administrative, and not legislative, power, and, therefore, the acceptance by the proper city officials of an offer of land for a park site is not a matter subject to referendum.

Id.

Municipal Corporations—San Francisco License Tax Ordinance—Meaning of Phrase, "Goods, Wares and Merchandise"—The words goods, wares and merchandise," as used in the San Francisco license tax ordinance requiring a person engaged in the business of buying, selling or exchanging second-hand goods, wares and merchandise to pay a license, include second-hand books.

In re Holmes, 63 Cal. Dec. 7.

Id.—Dealers in Second-Hand Books—Procuring Permit to Engage in Business—Requirement Reasonable Regulation—The subjection of dealers in second-hand books to police regulation to the extent of requiring such persons to procure permits as a prerequisite to engaging in the business of selling such second-hand merchandise is a proper and reasonable regulation.

Id.

Id.—Granting or Refusal of Permits to Second-Hand Dealers by Police Commission—Grant of Power Not Unconstitutional—The grant of general and unqualified power to the board of police commissioners of San Francisco to grant or refuse permits to dealers in second-hand merchandise, as contained in the charter of said city, is not unconstitutional as an attempt to confer arbitrary power upon such board to grant or refuse permits at their whim or pleasure.

Id.

Municipal Corporations—Creation of Bonded Indebtedness—Statute of 1901—Sale of Bonds at Less Than Par Value—Injunction—Where a city adopts the procedure prescribed by the statute of 1901 for the creation of bonded indebtedness, and a bond issue is authorized by the electors of the city pursuant to said statute, the city and its officials may be enjoined from selling bonds so authorized to be issued at less than their par value, at the suit of any property owner and taxpayer injuriously affected thereby.

Peery v. City of Los Angeles, 63 Cal. Dec. 83.

Id.—Authorization of Bond Issue Under Act of 1901—Effect of Legislative Act of 1921—Sale of Bonds at Less Than Par—The legislative act of 1921, enabling municipalities to sell any bonds thereof remaining unsold at the date of the approval of said act at a price which shall net the purchaser not more than the equivalent of six per cent per annum on the par value of said bonds, is not effectual to remove the requirement that bonds authorized to be issued and sold under the act of 1901 should not be sold for less than their par value.

Extract from Second Annual Message of Governor Edward

I. Edwards to the New Jersey Legislature,

Dated January 10, 1922.

"There has recently happened an event which, if allowed to become a precedent, will, in my judgment, destroy the well-established power of the Legislature to fix the rates charged the people of this State by public utilities. The Public Service Railway Company, upon being denied certain rates which it demanded, instead of adopting the procedure usual in such cases of going to the Supreme Court of the State for relief, applied to the United States District Court. The latter, upon an application based solely upon affidavits of the company, without notice to the Utility Board or any of the parties interested in the matter, issued an injunction restraining the board from interfering with the collection of the rates which the company sought. It is true that within a day after granting the order the judge who made it revoked it, but to me it seems to be intolerable that a situation could exist under which it is possible for a utility, dissatisfied with a unanimous decision of the legislative agency, to ignore the courts of this State and apply to a Federal Court which can assume to pass upon such questions, complicated and involved as they were, and requiring months of deliberation by the Utility Board, and in a summary manner set aside the order of the board.

"I am informed that such a situation can be corrected if the National Congress will amend Section 266 of the Federal Judicial Code, prohibiting the hearing by United States District Judges of cases decided by the Utility Board, and requiring that such cases shall only be heard, as indeed has been the practice until recent times, by the United States Supreme Court on appeal from the court of last resort of the State. The utilities of the State are purely intrastate concerns, and should be regulated solely by the State Legislature and its agencies. The Supreme Court of the State is unexcelled for learning and fairness. There is no excuse or justification whatever for a Federal Judge presuming that the State legislative agency and the State courts will not do justice. I would ask the Legislature, therefore, to adopt appropriate resolutions, directed to the National Congress, as well as to the representatives in Congress from this State, petitioning that body to pass corrective legislation for the avoidance of the recurrence of any such practice. In my judgment, unless corrective

legislation is passed, it will be only a question of time when the fixation of rates for utilities, instead of being a prerogative of the State Legislature, will become the prerogative of the Federal District Court, and the age-long struggle which the people of the State have conducted to control and regulate corporations created for the service of the public will have been in vain."

FURTHER CONSTRUCTION OF CUYAMA LATERAL.

Additional construction on the Cuyama road between Santa Maria and Bakersfield was arranged for at a conference before the Highway Commission at Sacramento on March 23rd. The meeting was attended by directors of the Cuyama Highway District, United States Forestry Service, Bureau of Public Roads, the California Highway Commission and engineers.

The Commission ordered immediate preparation of plans for construction of an eight-mile paved section on the Kern County side west from Maricopa.

Arrangements were also made for the immediate completion of surveys on a 16-mile section east from Buckhorn Creek where the present highway now under construction out of Santa Maria will end. A tentative understanding was reached that when these surveys were completed that the California Highway Commission would undertake the construction of an eight-mile section east of Buckhorn Creek and that the Forestry Service would undertake the construction of an equal section directly east ending at the Johnston Bridge. These two sections are the most rugged on the entire route and after they are built the country opens up and is fairly good traveling until such a time as funds are available for further improvement.

For the construction of the Cuyama Lateral the State has \$1,000,000, the counties of Santa Barbara, San Luis Obispo and Kern \$100,000 each, and the Forestry Service between \$200,000 and \$300,000, making in the neighborhood of \$1,500,000 to meet construction costs.

TITLES OF NEW ORDINANCES RECEIVED.

- Bacteriologist.** An ordinance creating the position of Bacteriologist and fixing the salary thereof. San Jose, Ordinance No. 1817.
- Billboards.** An ordinance regulating out-of-door advertising. Mayfield, No. 125.
- Buildings.** An amendatory ordinance regulating the construction, repair, etc. of buildings and fixing the fire limits. El Segundo, No. 84.
- Conveyance.** An ordinance authorizing the execution of a conveyance of certain lands to the First Christian Church of Glendora, Cal. Glendora, No. 230.
- Dog Taxes.** An amendatory ordinance regulating dog taxes. Colusa, No. 76.
- Election.** An ordinance calling an election on April 10th, 1922, for the purpose of submitting to the qualified voters the proposition to incur a bonded debt in the amount of \$10,000 for the purpose of doing certain street work. Fairfield, No. 80.
- Election.** An ordinance calling a special election for the purpose of submitting to the qualified voters a proposition to incur a bonded indebtedness for the acquisition, construction and completion of an addition to the city hall and furnishing the same in the amount of \$20,000. Palo Alto, No. 232.
- Election.** An ordinance calling for an election to be held at the general municipal election on April 4, 1922, for the purpose of submitting to the qualified electors the proposition to incur a bonded indebtedness in the sum of \$50,000 for the purpose of constructing improvements to the municipal water works. Santa Rosa, No. 365.
- Fire Limits.** An ordinance establishing fire limits and providing for protection against loss by fire, and providing for the burning of material and providing a penalty for violations. Chino, No. 91.
- Gravel Pits.** An ordinance regulating the maintenance of gravel pits. Venice, No. 856.
- Justices of the Peace.** An ordinance electing to reduce the number of Justices of the Peace. Solano County, No. 100.
- Lease.** An ordinance authorizing the leasing of certain real property for public park and playground purposes. Stockton, No. 764.
- License.** An ordinance fixing the business license to be paid by realty dealers. Turlock, No. 205.
- Licensing.** An ordinance licensing the business of transporting passengers for hire in motor vehicles commonly known as auto stages, to and from points outside of the town of Martinez, and providing a penalty. Martinez, No. 137.
- Prohibition Enforcement.** An ordinance prohibiting the sale, manufacture, unlawful possession or transportation of intoxicating liquors, and providing penalties for violation thereof. Yuba County, No. 79.
- Prohibition Enforcement.** An ordinance of the County of Fresno prohibiting the manufacture, possession, transportation, sale, barter, delivery or furnishing of any intoxicating liquor, or the manufacture, transportation or possession of any article or thing intended or designed for the manufacture thereof, except as permitted by the laws of the United States of America, regulating the issuance of search warrants, and prohibiting the appearance in public of any person under the influence of intoxicating liquor, and providing penalties for the violation thereof. Fresno County, No. 206.
- Purchase.** An ordinance authorizing the purchase and exchange of real property for the sum of one dollar and other considerations, for the purpose of securing a public right of way. Stockton, No. 763.
- Prohibition Enforcement.** An amendatory ordinance making each day the violation is continued, a separate offense. Tuolumne County, No. 109.
- Set Back Lines.** An ordinance providing a procedure for establishing set back lines and providing a penalty. Martinez, No. 138.
- School Buses.** An ordinance regulating the operation of school busses and other public conveyances before entering upon or crossing a railroad track. Lassen County. No. 128.

- Salary.** An ordinance fixing the salary and compensation of the city electrician. Taft, No. 138.
- Taxes.** An amendatory ordinance providing for the assessment, levy and collection of taxes. Mayfield, No. 126.
- Traffic.** An ordinance regulating certain travel and traffic on and over the public streets and providing a penalty for violation thereof. Gridley, No. 75.
- Time of Meeting.** An ordinance fixing the time and place for holding regular meetings of the Board of Trustees. Los Banos, No. 114.
- Time of Meeting.** An ordinance establishing the time and place of meetings of the Board of Trustees. Glendora, No. 229.
- Time of Meeting.** An ordinance providing for a change of time of meeting of the Board of Supervisors. Tuolumne County, No. 108.
- Weight of Loads.** An amendatory ordinance regulating the operation of motor vehicles and trailers upon the public highways and regulating the weight of such motor vehicles and the loads carried thereon. Santa Cruz County, No. 273.
- Weight of Loads.** An ordinance requiring lighter loads than loads prescribed by the vehicle act of the State of California and amendments thereto approved May 22, 1919; prohibiting the use of vehicles having flat spaces on the surfaces of tires; defining certain terms of this ordinance; providing penalties for violation thereof. Monterey County, No. 352.
- Weight of Loads.** An amendatory ordinance regulating the operation of motor trucks, motor vehicles, and trailers upon the public highways outside of incorporated cities and towns. Lassen County, No. 127.

REDDING'S MUNICIPAL LIGHTING PLANT A GREAT SUCCESS.

City Manager Rolison Reports Net Profit of the City in Three Months of Operation
as \$6,880.04.

As has been the custom since the city acquired the electrical distributing system, a monthly financial statement has been prepared for the benefit of the tax payers and O. K'd. by Winfred Wright, expert accountant, setting forth among many other things, the following details:

Receipts.

Revenues for February, gross
sales\$5,371.64

Expenses.

Interest and depreciation.....\$ 350.25
Maintenance and operation 402.02
Office expense, salaries and sup-
plies 231.42
Cost of power 1,724.10

Gross expenditures.....\$2,707.79

Net gain for February, 1922 ..\$2,663.85
Net gain for Dec. and Jan..... 4,216.19

Total net gain to March 1 ..\$6,880.04

Transfers in the amount of \$4,000 have already been made from the lighting fund to the general fund, besides the payment of all bills as shown in the report, leaving a sufficient amount in the treasury to provide for an additional transfer of \$2,000 at the next meeting of the trustees.

Placer-Nevada County Bridge.

Co-operative arrangements have been made tentative for the construction of a bridge over Bear River on the State highway between Auburn and Colfax now under construction. Supervisors of Placer and Nevada Counties met with the California Highway Commission at Sacramento on March 23rd and urged that this bridge be built, if possible, before the completion of the paving as the present structure is entirely inadequate. The bridge is on the county line between Placer and Nevada Counties.

WHAT OUR PACIFIC COAST CITIES ARE DOING.

Newport Beach. The city clerk has been instructed to advertise for bids on 400 tons of cast iron pipe to be used by the water department.

Corcoran. The Board of Trustees has awarded the contract to furnish cast iron pipe for betterments on the municipal water system to the American Cast Iron Pipe Co. Some 450 feet of 8-inch pipe and 2,100 feet of 6-inch pipe will be purchased. The trustees have also ordered two new electroliters at a cost not to exceed \$50 each.

Fresno. The trustees are discussing a project to construct an open air swimming pool. Six thousand feet of concrete ditch pipe has been ordered by the department of public works.

Antioch. The board of trustees are considering the matter of improving the town filter plant.

St. Helena. The town trustees have decided to submit to the people the question of taking over the properties of the St. Helena Water Co. The price asked by the company is \$60,000.

Oakland. The city council has appropriated \$22,000 as first payment on property valued at \$100,000. This property is to be used to house the African game collection which Explorer Snow will donate to the city of Oakland, provided the latter gives the \$1,000,000 collection an appropriate museum.

Madera. The trustees of this city are considering the matter of floating a \$5,000 bond issue for the purpose of providing a municipal auto camp ground. The San Joaquin Light and Power Co. has offered to sell to the city its water mains for the sum of \$7,000. The company serves seventy water consumers and claims an income of \$1,500 a year.

Redwood City. A bond election is to be held soon for the purchase of the water system.

Venice. The trustees of this city recently voted to place on the ballot of the coming municipal election, the proposition for a \$250,000 bond issue. The proceeds of the bond

issue to be used for the construction of a new outfall sewer and septic tanks.

Palo Alto. The city council has passed a resolution to call an election to vote on the issuance of bonds in the sum of \$20,000 to add a second story to the city hall and make other improvements to the building.

Pittsburg Reports the Following:

Pacific Municipalities,
5th Floor Pacific Bldg.,
San Francisco, California.

Gentlemen:

In your Department of Information concerning "What Our Pacific Coast Cities Are Doing," Pittsburg has seldom been mentioned, probably, because you are not mind readers and I have not given our progress the publicity which we deserve.

In the last two years Pittsburg has purchased its municipal water supply and has spent \$70,000 on extensions and improvements. We have reduced operating expenses and have cut our metered water rates 25 per cent. We have spent \$40,000 for the construction of storm and sanitary sewer extensions.

On the first of May this year, we will break ground for the construction of a new city hall to cost \$75,000. We have ahead of us, also, a street paving program which calls for an expenditure of \$115,000, and a municipal wharf which will cost approximately \$40,000.

About \$9,000 has been raised for the construction of a library and when sufficient funds are available, this building will be erected. A few minor things which we are doing are: The erection of an electric sign across our main highway so the travelers will know the name of the city through which they are passing, the organization of a Young Men's Athletic Club, which is a pronounced success, and the organization of a live Chamber of Commerce.

Yours very truly,

R. N. DORTON,
City Manager.

THE 1921 LEGISLATURE.

From Collier's Weekly—The searching of the records is one of the things that has led to the political revolution of the past decade. Among the more potent agents of this political revolution are the men who have gone into official records which were obscure and complex, and made them simple and available to the general public. Conspicuous among the men who have done this is Mr. Franklin Hitchborn, who, at the end of each session of the California Legislature, compiles a book in which he analyzes the record of every member and the history of all the important bills. Every voter in California should read it. Voters elsewhere should know about it, and try to secure a like institution in their own States.

The "Story of the California Legislature of 1921," by Franklin Hitchborn, is now going through the press and will soon be ready for public distribution.

The book is sure to be unusually attractive as it covers the King tax bill controversy, the fight for the Wright bill, and other important progressive measures. Most valuable, however, is the case which it makes out against those who would force the state back into the old corporation—vice domination of machine rule.

The price is \$2.00 per copy, and those desiring copies are requested to send their subscriptions direct to Franklin Hitchborn, Santa Clara, California.

South San Francisco. The city engineer has submitted plans and specifications for the construction of an extension to the city's sanitary and storm water sewers. The estimated cost is \$40,000.00.

Sebastopol. Work on the \$75,000 street paving program has just been commenced. The paving which is to be surfaced with Warrentite, is being done under contract with the Warren Bros. Construction Co. The entire program is scheduled for completion in about two months.

Start on San Gabriel Dam Is Made.

Los Angeles County. At a recent meeting of the Board of Supervisors, a resolution offered by Supervisor Cogswell was adopted, authorizing Flood Control Engineer Reagan to proceed as soon as water conditions permit to make borings to determine the feasibility of building the San Gabriel Canyon Dam.

Mr. Cogswell stated that this was the first step of a great project which must be pushed vigorously to its ultimate completion. No other one thing is of such vital importance to the interests of Los Angeles County at the present time as the controlling of the flood waters of the San Gabriel River and storing them for the purpose of irrigation and power production. He says that he realizes that it is a big undertaking, but one that when once completed, would be of immense value to the county as well as a source of great revenue.

Stockton. Petitions to the city council for the calling of a special election for the purpose of electing a Board of Freeholders to draft a new charter were officially filed with the city council on March 6th. An effort will be made to speed the matter along so as to, if possible, place the new charter before the people at the next general election and thus save the cost of a special election.

It is probable that the ballot on which the charter proposition is presented will bear several other propositions according to Mayor D. P. Eicke as quoted in the Stockton Independent of March 7th.

According to statements by the mayor, it is likely that a recent offer for the sale of the Stockton Mineral Baths to the city will be answered through one proposition. Other measures will permit the people to express their attitudes toward a municipal hydro-electrical project, flood control and municipal ownership of the Pacific Gas and Electric Company water system, which supplies Stockton.

Whether the latter proposition will be included on the ballot is largely dependent upon the fixing of a valuation on the system by the State Railroad Commission. The rail board will conduct a hearing on the matter about the third of April, and if its decision is forthcoming in time it is desired by the mayor that the proposition be submitted to the people with the charter measure.

Sonoma County. The Board of Supervisors of Sonoma County have accepted the bid of W. L. Proctor to erect an asphalt heating plant in Santa Rosa at a cost of \$7,304.05.

San Luis Obispo citizens are starting a movement to secure the city manager form of government.



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CITY PLANNING MOVEMENT

(Continued from page 86)

grinds its inhabitants down—that the great public service corporations form the invisible government behind the city officials, making graft rampant throughout the administration—that the very air is polluted with dust and smoke menacing life and health, as in Dicken's description of "Coketown."

"It was a town of machinery and tall chimneys out of which interminable serpents of smoke trailed themselves for ever and ever, and never got uncoiled. It had a black canal in it, and a river that ran purple with dye, and vast piles of buildings full of windows where there was a rattling and a trembling all day long, and where the piston of a steam engine worked monotonously up

and down like the head of an elephant in a state of melancholy madness."

"It contained several large streets all like one another, and many small streets still more like one another, inhabited by people equally like one another, who all went in and out at the same hours, with the same sound on the same pavements to do the same work, and to whom every day was the same as yesterday and to-morrow, and every year the counterpart of the last and the next."

Some of the odium hurled against the city is true, but very much of it is not. The city has always been the cradle of progress and achievement. This was so in ancient and medieval, as well as in modern times. The city has been responsible for developments in science and art, and in commerce,

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through conscious or unconscious cooperation. Great developments are only possible where people are banded together, and where there is opportunity for free exchange of experiences and ideas.

Most people love the city, for the world is rapidly becoming urban in population. The city affords the greatest opportunities for self-improvement and recreation, as well as for the consummation of great financial enterprises.

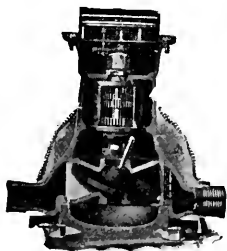
It is, of course, highly undesirable that our farms should be depopulated, but everyone cannot go "back to the land," and not every man is capable of becoming a successful farmer. Men who are "rural-minded" should stay on the farm where they can attain their greatest success, but it is a serious mistake to treat the back-to-the-farm movement as the final panacea for present industrial ailments. Farm and city are really inter-dependent, and each has its

sphere in the general scheme of things. Moreover, both are undergoing beneficial changes, the farms are beginning to secure the advantages which may be derived from cooperation, and the city is slowly, but quite surely, learning that with proper planning to shape and direct its growth and with a re-awakened interest in civic affairs it will be able to fulfill its destiny as an agency to promote higher intellectual and moral attainments.

While the subject matter of the foregoing article hardly calls for anything of the kind, a short, general bibliography is added for those who may wish to pursue the subject farther.

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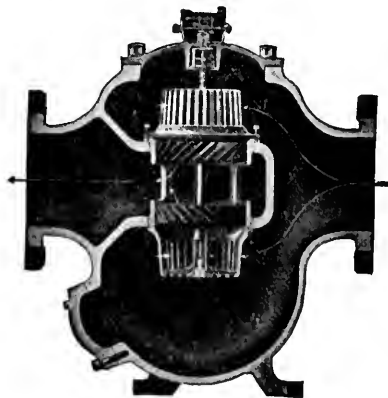
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Co., New York; New Ideas and Ideals in the Planning of Small Towns, Cities and Villages, John Nolen, American City Bureau, New York; the Garden City, C. B. Purdom, J. M. Dent & Sons, London; The Planning of the Modern City, Nelson P. Lewis, John Wiley & Sons, New York; Rural Planning and Development, Thomas Adams, Conservation Commission, Ontario, Canada; American Municipal Progress, Charles Zueblin, MacMillan Co., New York; The Government of American Cities (1920 Edition), W. M. Monroe, Mac-

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All of the professional architectural, engineering and municipal administration publications, the English "Garden Cities and Town Planning Magazine," and the "Town Planning Review."

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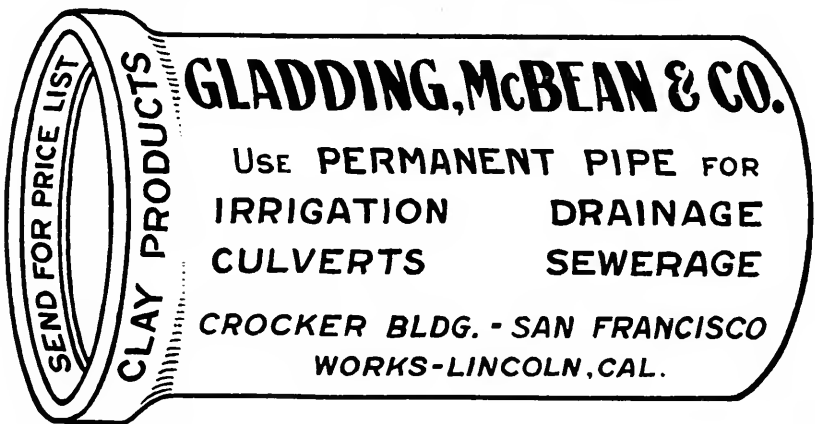
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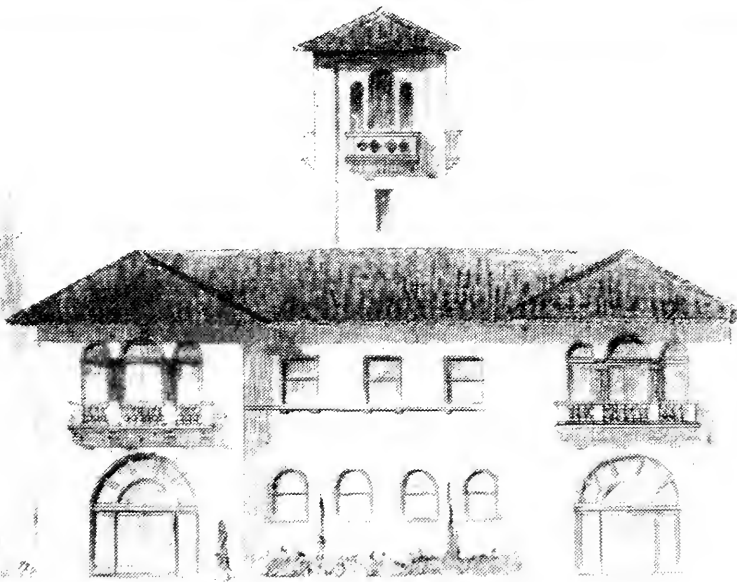
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A Refuse Incinerator for the City of Alameda

By Clifton E. Hickok, City Manager..... 107

How the City Manager Form of Government is Working in Ohio

By E. E. Parsons, City Manager..... 121

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A REFUSE INCINERATOR FOR THE CITY OF ALAMEDA, CALIFORNIA

By CLIFTON E. HICKOK
City Manager

Introduction

The City of Alameda for a great many years has been dumping its refuse upon the marsh lands of Bay Farm Island. The owners of the property upon which the dumps are located will no longer permit the use of this land for such purpose; and it has therefore become necessary to dump the refuse temporarily upon low ground along the outskirts of the city. This results in numerous complaints from residents of the vicinity. Due to the fact that the area of the island of Alameda is restricted and that there are no isolated places where a new permanent dump may be established it is evident that a new solution must be found for the disposal of the refuse.

Methods of Disposal

Suggestions have been made that the refuse of the city offers possibilities for the salvaging of certain values contained therein; such as the extraction of greases and fertilizers from the garbage; the recovery of tin cans and metals; the generation and sale of steam for commercial

purposes through the burning of the refuse. From the experiences of numerous other municipalities it is apparent that such efforts on the part of the smaller cities to derive a revenue from their refuse, have almost universally been futile, and in a very few instances among the larger cities has it proven even partially successful. For this reason this report will be confined to the sole aim of totally destroying by fire all combustible ingredients of the city refuse; and the problem therefore resolves itself to a selection of the best and most economical type of incinerator.

Nature of Refuse

The refuse produced by the City of Alameda is unusually favorable to disposal by incineration. The population of 30,000 is very largely residential, producing practically no industrial, trade or stable wastes. There are very few, if any, large dead animals to be disposed of. At the present time part of the garbage is segregated at the household and restaurants, and sold by the city to a hog raising concern, under a

contract which has two years to run. However, an incinerator should be constructed which will be capable of also destroying this garbage, as a safe-guard against any emergency which may arise or a probable cancellation of the above mentioned contract two years hence.

At the present time the City of Alameda is producing approximately the following average daily refuse for twenty-six collection days per month:

Unsegregated refuse.	25 tons per day
Segregated garbage.	2 " " "
Small dead animals.	24 lbs. " " "

Total.....27 tons per day

While there is a segregation of garbage at the present time amounting to two tons per day, there still remains in the unsegregated refuse a certain percentage of garbage. Observations and measurements have been made of typical loads of refuse, upon which are based the following estimates of the approximate proportions of the constituent materials forming the total refuse of the city per day.

		Proportion by weight
Garbage.....	5 tons	19%
Rubbish.....	22 "	81%
	27 "	100%

It is estimated that the rubbish consists of the following proportions of combustible and non-combustible materials:

Combustible rubbish.....	19 tons	86%
Non-combustible rubbish.	3 "	14%
	22 "	100%

Probable Increase in Refuse

The present population of Alameda is 30,000. The city, being upon an island, is restricted as to area and therefore as to ultimate population, consequently it is not probable that

the ultimate population will exceed 60,000. Should the proposed Alameda Naval Base be constructed by the U. S. Navy Department, this ultimate population would be reached within a few years. It might therefore appear advisable to construct at this time an incinerator sufficiently large to provide for the increase in the production of city refuse. However, if an incinerator is built at once large enough to dispose of the present city refuse, within a burning period of twelve hours, its capacity can be doubled if need be by putting on a night crew. It is therefore not considered advisable at this time to build a plant larger than is necessary to take care of the present refuse, within a burning period of twelve hours.

Capacity of Incinerator Required

Observations have been made as to the time of delivery of the refuse to the city dumps and it is found to be approximately as follows at the present date:

25 tons.....	10 a. m. to 12 m.
2 "	4 p. m. to 5 p. m.

This means that the daily tonnage of refuse, if delivered as at present, will all be brought to the incinerator within a period of three hours, and would therefore require an incinerator with a receiving capacity of nine tons per hour. However, it will be possible to so regulate the scavenger wagons that the delivery of the refuse can be distributed over a period of six hours, which would require a plant with a burning capacity of four tons per hour, if the refuse were destroyed as brought. However, it is possible to construct an incinerator with cubical capacity of its receiving bins or furnaces great enough to receive the refuse as it is delivered during the day time and continue to burn it throughout the 24 hours

in which case the burning capacity per hour in our plant need not be over two tons per hour. It is essential that a plant be so designed as to be able to receive, either into its furnaces or storage bins, the refuse as it is brought; and thereby to prevent the accumulation upon the charging floor of quantities of refuse, with attendant odors and nuisances.

It is therefore concluded that the City of Alameda should construct an incinerator with the following capacities:

1st—With a continuous burning capacity of two tons per hour.

2nd—With a receiving capacity of four tons per hour.

Essentials Required in an Incinerator

There are several major essentials or elements which enter into the search for a successful incinerator, viz.:

1. First cost.
2. Operating cost.
3. Successful burning capacity.
4. Receiving capacity.
5. Maintained temperature of at least 1250 degrees F.
6. Simplicity of operation as regards charging, stoking and removal of clinkers and ash.
7. Comparative freedom from obnoxious odors and smoke.
8. Minimum fuel requirements.
9. Elimination of complicated mechanical contrivances.

Types of Incinerators

There are various types of incinerators, which have been developed in England, Europe and the United States. There are, however, only three essential types or groups, and all others are either developments or modifications of those three major types.

1. *The English Type* or High Temperature Plant, consists of a series of cells or furnaces connected to a common flue; the refuse being deposited on or near the grates; a forced draft is used to obtain high temperatures and a combustion chamber for the complete combustion of the gases. The modifications of this type include furnaces having a large horizontal area, as well as those whose large capacity is due to their height.
2. *The Steel Furnace Type* which consists of a water jacketed steel furnace, inside of which the rubbish is suspended over the fire in a basket of steel pipes. As the material is dried and partially burned it falls or is pushed from the basket down on to the grates where it is consumed. This system uses a forced and induced draft, together with a combustion chamber. This is known as a medium temperature plant.
3. *The Dutch Oven Type* is one in which the more combustible materials or fuel are burned on a grate and the heat and flames resulting therefrom, are conducted over and under a platform upon which has been deposited the garbage, dead animals and moisture-carrying refuse. There are certain plants of this type which are capable of maintaining high temperatures, due to flue arrangements. This type does not require a high stack and may or may not be equipped with a forced draft.

Inspection Trip

Due to the great importance of the problem and to the fact that there are so many types and makes of incinerators, many of which have developed into failures and various degrees of success, the City Council of Alameda

deemed it advisable to instruct its city manager to make a trip of inspection through the western, middle western and southern parts of the United States, to gain first hand information. In pursuance of these orders the following plants have been inspected and data obtained thereon.

portion of the refuse is being dumped.

The plant, which consists of five furnaces, with combustion chamber, blowers and 20 H. P. boiler, is housed in a well-designed, attractive concrete building. An oil burner was originally installed but its use has been discontinued as it was found not necessary.

City	Type	Make	Date of Visit
San Jose, Cal.	English	Fred P. Smith	Feb. 28, 1921
Berkeley, Cal.	English	Sterling	Mar. 4, 1921
Sacramento, Cal.	Steel Furnace	Decarie Co.	Mar. 15, 1921
Vallejo, Cal.	Dutch Oven	Collins & Pellet	Mar. 15, 1921
Presidio, S. F.	Dutch Oven	Nye & Lee (Collins & Pellet)	Apr. 15, 1921
San Francisco	English	Thackerey	Apr. 15, 1921
San Francisco	English	Heenan-Froude	Apr. 15, 1921
Pasadena, Cal.	English	Fred P. Smith	Apr. 22, 1921
Santa Cruz, Cal.	Steel Furnace	Briggs	Sept. 16, 1921
Portland, Oregon	English	Fred P. Smith	Oct. 17, 1921
Seattle, Wash.	English	Meldrum (3)	Oct. 19, 1921
Vancouver, B. C.	English	Heenan-Froude	Oct. 20, 1921
Vancouver, B. C.	English	Fred P. Smith	Oct. 20, 1921
Minneapolis, Minn.	Steel Furnace	Decarie Co.	Oct. 25, 1921
Sedalia, Mo.	Dutch Oven	Nye Odorless	Oct. 27, 1921
Tulsa, Oklahoma	Dutch Oven	Nye Odorless	Oct. 28, 1921
Waxahachie, Texas	Dutch Oven	Nye Odorless	Oct. 29, 1921
Beaumont, Texas	Dutch Oven	Nye Odorless	Oct. 31, 1921
Baton Rouge, La.	Dutch Oven	Nye Odorless	Nov. 1, 1921
New Orleans, La.	Steel Furnace	Decarie	Nov. 2, 1921

There follows a brief synopsis of the report made on each plant inspected.

San Jose, California

Make of Plant—Fred P. Smith Co.

Year Built—1913.

Cost—\$30,000.

Rated Capacity—80 tons, 24 hours or $3\frac{1}{2}$ tons per hour.

Actually Burning—12 tons in 8 hours

Number of Operators—2 at \$4.50.

Daily Labor Cost—\$9.00.

Daily Fuel Cost—None.

Annual Budget Allowance for Plant—\$4,000.

Average Cost per Ton Burned—75c.

Remarks:

According to city manager C. B. Goodwin, this plant has given good satisfaction. It is being operated without any material nuisance as regards odor or smoke. The plant is not being used to its full capacity due to the fact that a considerable

The only fuel used is a small amount of sawdust which is delivered to the plant at no cost.

The refuse from the scavenger wagons is first dumped into refuse hoppers, in the bottom of which are gates permitting the refuse to be passed into the drying chambers. The upper portion of each furnace consists of a drying chamber in which the refuse is held temporarily while exposed to the action of the fire on the grates; the refuse later being stoked down on to the grates for final burning. The garbage of the city is not segregated but is consumed with the other refuse.

The scavengers association pays the city \$275.00 per month for the privilege of collecting the refuse and destroying it in the incinerator. There is also an additional revenue of about \$18 per month for burning extra refuse, brought to the incinerator by private parties.

Berkeley, California

March 4, 1921

Make of Plant—Sterling Destructor.*Year Built*—1913.*Cost*—\$65,000.*Rated Capacity*—48 tons, 24 hours or 2 tons per hour.*Actually Burning*—37½ tons in 16 hours, or 2.3 tons per hour.*Number of Operators*—7.*Daily Labor Cost*—\$40.00.*Daily Fuel Cost*—None.*Annual Budget Allowance*—None.*Average Cost per Ton Consumed*—\$1.07.**Remarks:**

This plant is successfully consuming the refuse but has proven expensive to operate. No fuel is used. The records as to repairs are indefinite so that the average cost per ton consumed, shown above at \$1.07, includes only the labor involved.

The plant consists of three furnaces housed in a concrete and steel building, equipped with elaborate mechanical devices for charging the furnaces, as well as for removing the clinker.

The unsegregated refuse is dumped into a sunken pit, from which it is removed by a grab-bucket, operated from a mono-rail crane, and distributed to the respective furnaces. The clinker is dragged from the grates into dump cars suspended from a mono-rail running to the dumps.

The operation of this plant requires almost constant stoking and is therefore more exhausting on the operators, than any plant which I have inspected.

The plant is equipped with forced draft blower, combustion chamber, and an auxiliary water tube boiler for generation of steam. This steam boiler has not justified its installation.

Sacramento, California

March 15, 1921

Make of Plant—Decarie.*Year Built*—1907.*Cost*—\$62,000.*Rated Capacity*—80 tons, 24 hours or 3½ tons per hour.*Actually Burning*—66 tons, 16 hours, or 4 tons per hour.*Number of Operators*—8 men.*Monthly Labor Cost*—\$1151.88*Monthly Fuel Cost*—\$26.00.*Monthly Repair*—\$16.00.*Monthly Tonnage Destroyed*—2,310.

} Month
of
Feb.,
1921.

Average Cost per Ton Destroyed—52 cents.*Annual Budget Allowance*—\$12,000.**Remarks:**

This plant is exceeding its rated capacity and at a cost of 52c per ton consumed. However, the cost of 52c per ton is consumed is for the month of February, 1921, alone, and does not include extensive repairs which were made in the year 1919, the data covering which was not available.

The plant consists of two Decarie furnaces housed in a corrugated iron building with a steel stack 196 feet high. There are forced draft blowers and combustion chambers. The plant has the appearance of not being well maintained, probably due to the fact that the capacity is so far exceeded; refuse is allowed to accumulate in large piles on the charging floor; the premises are dirty with considerable attendant odor.

There is no segregation of garbage in Sacramento. Some oil as fuel is required but not to any material extent, the total cost for fuel during the month of February being only \$26.

The forced draft is operated by steam generated by the burning of the refuse.

Vallejo, California

March 15, 1921

Make of Plant—Collins and Pellet (Dutch Oven).*Year Built*—1919.*Cost*—\$12,000.*Rated Capacity*—35 tons in 24 hours, or 1.5 tons per hour.*Actually Burning*—25 tons in 24 hours.*Number of Operators Required*—4.*Daily Labor Cost*—\$20.00.*Daily Fuel Cost*—\$1.40.*Average Cost per Ton Burned*—85c.**Remarks:**

This plant consists of a furnace built on the Dutch Oven principle, with an oil burner at one side of the furnace. The more combustible material, together with the oil furnishes heat for the destruction of the wetter materials. There is practically no stack to this plant the smoke itself being consumed, and nothing but hot gases emerging from the very short stack. There was considerable odor noticeable. Oil is used continuously at the rate of about one barrel per day.

The plant at the time of the inspection was being operated in a very poor manner, the grounds and plant itself presenting an unkempt unsanitary appearance. The ashes and clinker coming from the furnace at the time of my inspection contained large quantities of unburned material including bits of paper and rags. The plant was being operated by a contractor so that I was unable to obtain very definite data as to costs.

Mr. Pellet, who happened to be present, stated that the unsatisfactory results of the plant were due to the fact that the contractor had not followed the plans in constructing the plant, and that the plant was not being operated properly.

Presidio, San Francisco, California

April 15, 1921

Make of Plant—Lea and Nye. (Built by Collins).*Year Built*—1914.*Cost*—\$4,000 for furnace alone.*Rated Capacity*—16 tons in 24 hours.*Actually Burning*—2 tons in 8 hours.*Number of Operators Required*—1.*Daily Labor Cost*—None.*Daily Fuel Cost*—None.*Average Cost per Ton Burned*—\$2.56.**Remarks:**

The plant at the Presidio is of the Dutch Oven type, patterned after the original Nye patents. It consists of an arched furnace, containing a flat steel car 12 feet wide, upon which the refuse is deposited through a chute from above. At one side of the furnace is an oil burner, the heat from which is carried over the refuse. After the refuse upon the car is burned, the car is drawn from the furnace, and the ashes and clinker removed. The furnace has a very short stack, the smoke being confined until complete combustion takes place, and nothing but hot gases being allowed to escape into the atmosphere.

The refuse of the Presidio is very highly segregated so that practically nothing but garbage is destroyed at this plant. The full capacity of the plant is not being utilized, so that the unit cost per ton destroyed is unusually high. The garbage is thoroughly destroyed and the army authorities consider the plant entirely satisfactory.

San Francisco, California

April 15, 1921

Make of Plant—Thackeray.*Year Built*—1897.*Cost*—(Sold to San Francisco in 1909 for \$400,000).*Rated Capacity*—600 tons per day.*Actually Burning*—400 tons per day.

Number of Operators Required—51 men.

Daily Labor Costs—None.

Daily Fuel Cost—No fuel.

Average Cost per Ton Destroyed—\$1.00.

Remarks:

This plant was constructed in 1897 by the Sanitary Reduction Works. It was purchased by the City of San Francisco in 1909 for \$400,000, but its operation was continued by the Sanitary Reduction Works until 1918, since which time the Scavengers' Association has operated the plant, under the supervision of the San Francisco Board of Public Works.

The plant is what is known as the Thackeray Destructor, an English type, consisting of thirty-two furnaces arranged in two groups of sixteen each. Each group consists of two rows of eight furnaces set back to back on each side of a common flue; the flues for each group of furnaces being conducted to a common chimney. Each furnace has an inside capacity of sixteen cubic yards.

The refuse is dumped into large open bins above and parallel to the furnaces from which it is raked out onto trap doors opening into the top of the furnaces. The building, driveways and incinerator proper have been allowed to deteriorate to a dilapidated condition. As a consequence, the rated capacity of 600 tons per day can not be attained. The maximum actual refuse destroyed is 400 tons per day. Of this a considerable quantity of material as it comes from the furnaces is not completely consumed. Rags, bits of paper, and various other articles are discharged in a partially burned condition. The ashes, tin cans, clinker and partially burned materials are taken from the furnace in wheel-barrows and dumped

into steel gondola cars to be conveyed to the dumps on Islais Creek.

Due to the fact that the plant has not capacity enough to consume all of the refuse brought to it, a certain amount of the more combustible material, amounting to about 25 tons per day, is burned in the open in the large space between the two groups of furnaces, thereby adding to the odors and nuisances of the neighborhood.

The plant is operated in two shifts of nine hours each, with 35 men on the day shift and 16 men on the night shift, the stokers being paid \$5.25 per day, and all others \$4.75 per day. Each scavenger is charged \$1.00 per ton for the destroying of the refuse which he delivers to the incinerator, which is approximately the cost of incineration.

There is no segregation of refuse in San Francisco and no attempt is made to recover any values from tin cans, rags, papers, etc. The Sanitary Reduction Works, when it was operating this incinerator installed a foundry adjacent to the plant for casting tin cans and metals into sash weights, but this plant proved to be a failure and was abandoned.

There have only been two Thackeray plants constructed, the one at San Francisco built in 1897, and one at Montreal, Canada, built about 1895. This type of plant is considered to be obsolete.

San Francisco—Islais Creek Plant

April 15, 1921

Make of Plant—Heenan Froude (Power Specialty Co.)

Year Built—August, 1913.

Cost	Furnaces and foundry	\$123,000
	Building, stack and foundation	32,000
	Total	\$155,000

<i>Rated Capacity</i> —120 tons in 24 hours	} Closed down
<i>Actually Burning</i> —	
<i>Number of Operators Required</i> —	
<i>Daily Labor Costs</i> —	
<i>Average Cost per Ton Destroyed</i> —	

Remarks:

This plant was constructed in 1912 by the Power Specialty Company, under specifications prepared by Rudolph Hering of New York City. It was the Heenan-Froude type, and embodied many experimental mechanical devices for the handling of the raw refuse as well as the clinkers and ashes. Many changes in these mechanical devices were made during the construction of the plant. The specifications were especially stringent regarding the elimination of odors, smoke and dust, which specifications could not be met at the official test, and as a consequence, the city engineer refused to accept the plant. The guaranteed unit costs and the guaranteed rate of refuse destroyed were accomplished. The final test was made in October, 1914, since which time the plant has been shut down and all refuse incinerated at the old Thackeray plant. Consequently no data as to operation costs under present prices is available.

Pasadena, California

April 22, 1921

Make of Plant—Fred P. Smith.

Year Built—1912.

Cost—\$42,251.

Rated Capacity—20 tons per day.

Actually Burning—5 tons per day (Rubbish only).

Number of Operators Required—1—plus one-half of Supt.'s salary.

Daily Labor Costs—\$7.65.

Daily Fuel Costs—None.

Average Cost per Ton Destroyed—\$1.53.

Remarks:

The Fred P. Smith incinerator plant at Pasadena as constructed in 1912, contained four furnaces, but later two of the furnaces were removed to make room for the installation of machinery for grinding a certain part of the garbage into chicken feed. This arrangement proved unsuccessful and was discontinued. As a consequence the present incinerator plant consists of two furnaces only.

The incinerator is contained in an attractive concrete building with a reinforced concrete chimney 150 feet high. The plant is located in the heart of the city on South Raymond avenue, a prominent boulevard upon which numerous automobiles are continually passing. On all sides are industries and some few small residences. Immediately adjacent and within fifty feet of the incinerator is a fruit canning establishment, the Pasadena Canning Company. The Raymond Hotel, one of Southern California's noted inns, is within 1,500 feet, and it is stated that no complaints are received.

Due to the restricted area, it was not possible to construct an inclined driveway from the street elevation to the discharging floor at the top of the furnaces. Consequently the wagons dump their refuse into large containers which are hoisted about 35 feet and automatically emptied into the drying chambers which are in the upper part of the furnaces.

The clinkers and ashes are removed via a recess below the building, the ashes being screened and sold for fertilizer at a profit of \$5.00 per ton.

The refuse of Pasadena is highly segregated as regards garbage. The garbage is wrapped by the householders, collected by the city and sold by it to a contractor who feeds it to hogs. The garbage from the hotels

and restaurants is not wrapped, but is also sold by the city. Pasadena produces a total of from 18 to 20 tons of garbage per day.

The city collects free of charge the garbage, tin cans and ashes. All other rubbish is collected by private scavengers. Due to the fact that the garbage is highly segregated and is all sold, the amount of refuse brought to the incinerator for destruction is small. The capacity of the two furnaces is by no means approached, which accounts for the high cost per ton consumed.

This plant is equipped with a forced draft, which is used only for starting the fires. No fuel other than the rubbish is used. Mr. H. F. McDowell, superintendent of the department states that the incinerator has been thoroughly satisfactory.

Santa Cruz, California

Sept. 16, 1921

Make of Plant—Briggs (Decarie Type).

Year Built—1914-15.

Cost—\$7,000.00.

Rated Capacity—1 $\frac{1}{4}$ tons per hour.

Actually Burning— $\frac{3}{4}$ ton per hour.

Number of Operators Required—1.

Daily Labor Costs—\$4.50.

Daily Fuel Costs—\$3.50.

Average Cost per Ton Destroyed—\$1.33.

Remarks:

This plant which contains but one furnace was built by James Briggs of Berkeley, California, and embodies some of the ideas used in the Decarie furnace. The refuse is suspended above the grates in a basket of water cooled pipes. Blowers for a forced draft were installed, but are not used. A boiler for the generation of steam from the burning refuse was also installed but proved unsuccessful and

its use abandoned. Oil is used for fuel as well as are a great deal of shavings which it is necessary to purchase. There is no segregation of refuse, the garbage being destroyed with the other refuse.

The plant is built on a side hill, the scavenger wagons driving directly onto the charging floor from which the refuse is pushed and raked into the hopper and thence into the furnace. The clinker and ashes are removed from the lower furnace area by wheelbarrow and dumped over the side hill.

Portland, Oregon

Oct. 17, 1921

Make of Plant—Fred P. Smith.

Year Built—1910-11.

Cost—\$99,900.

Rated Capacity—150 tons per 24 hours.

Actually Burning—157 tons per day (September, 1921).

Number of Operators Required—18 men on two shifts.

Daily Labor Costs—\$69.00.

Daily Fuel Costs—No fuel.

Average Cost per Ton Destroyed—47 $\frac{1}{4}$ c.

Remarks:

The incinerator at Portland consists of two furnaces or units, each of which has four grates. Above the grates are refuse containers or drying chambers which are exposed to the action of the fire beneath. These drying chambers have holding capacity sufficient to facilitate greatly the receiving of the refuse, and thereby eliminate the necessity of storing the refuse on the charging floor until such time as the furnaces can receive it. I spent several hours on the charging floor of this plant, and although there were scavenger wagons arriving continuously, at no time

did I observe any refuse being held on the floor for a period beyond a few minutes. Each wagon was backed up to a charging hole and the refuse dumped directly into the drying chamber, whatever refuse falling upon the floor being immediately pushed into the charging hole. There was very little odor or dust noticeable, although at times a considerable amount of smoke was present on the charging floor as well as on the stoking floors. This smoke was partly occasioned by the opening of the grate and stoking doors on the lower levels at the same time that the charging cover was removed.

This plant is equipped with forced draft blowers which are used continuously. Each unit is equipped with a 100 H. P. boiler for the operation of fans for heating and hot water. No fuel is used other than sawdust and wood rubbish delivered free to the plant.

The incinerator is housed in a well designed concrete building located on the edge of Guilds Lake. The wagons approach the charging floor on a concrete viaduct. The building is surrounded by a well kept grass and flower garden plot.

There is no segregation of garbage in Portland, the garbage being consumed with the other materials. Large tin cans and ashes are required to be segregated and are hauled directly to the dumps. The ashes of Portland are mostly wood ash and consequently have no fuel value to assist in destroying the refuse in the incinerator. For this reason it is not considered desirable to put them through the incinerator, as is done with coal ashes in eastern cities where there is always an appreciable amount of unburned coal particles present.

The superintendent of the plant, Mr. Wm. G. Holber, stated that

during 1917 several changes were made in the interior arrangement of the furnaces which resulted in a better burning capacity. He also stated that considerable trouble was had with the fire brick lining of the furnaces.

This plant is being well operated and is undoubtedly giving good results, accurate and complete data is kept as to costs of operation, more care being exercised in this regard at this plant than at any other visited by me.

Seattle, Washington

Oct. 19, 1921

The City of Seattle, Washington, has constructed three Meldrum incinerators, an English type, the first being erected in 1907. All three of these plants have been abandoned since 1915, and during the high price of metals occasioned by the war, they were dismantled and sold for junk. Since 1915 Seattle has been dumping its refuse, including garbage, throughout the city, there being maintained at the present time sixteen dumps.

The Meldrum plants which were erected at Seattle were of the front feed type with boilers and regenerators. They destroyed the material very completely but proved to be so expensive, even at pre-war costs, that the city was forced to return to the dumping of its refuse.

The City of Seattle collects free of charge all refuse from homes and commercial houses. There is no segregation, everything including the garbage being placed in the dumps, which are located in gulches, low ground and marshes along the waterfront.

A great many dumps are maintained in residential areas within 75 to 100 feet of homes. At one place where a home was located on the side of a gulch the garbage was being placed

directly under the house. An attempt is made to keep the ashes and less obnoxious refuse on the top of the dump to act as a covering. Excess dirt from excavations, when available, is occasionally placed upon the top of the dumps.

At one place the city was dumping refuse in a low area of the grounds of the Franklin High School to be used as a foundation for a playground. At another place refuse was being dumped in Green Lake Park within 400 feet of a public library.

Vancouver, B. C.

Oct. 20, 1921

Make of Plant—Fred P. Smith.

Year Built—1911.

Cost—\$67,491.

Rated Capacity—100 tons in 24 hours.

Actually Burning—16 tons in 8 hours

Number of Operations—6.

Daily Labor Costs—\$31.30.

Daily Fuel Costs—None.

Average Cost per Ton Destroyed—\$2.17 (Year 1920), \$1.96 (May, 1921).

Remarks:

The City of Vancouver has two plants, one the Fred P. Smith plant, and the other a Heenan-Froude plant of English make. The latter which was erected in 1907 was closed down in May, 1916, due to excessive cost of operation, although its destruction of the refuse was thorough and complete.

The Fred P. Smith plant, at Vancouver, consists of four furnaces with a drying chamber above each. There is a forced draft and combustion chamber.

The plant is housed in a concrete structure located immediately adjacent to the Connaught Bridge, on a main traffic artery from which bridge the scavenger wagons drive directly onto the charging floor, and discharge

their loads through the charging holes into the drying chambers. No fuel is used other than old road planking which is brought to the plant by the Street Department. The construction and operation of the plant is similar to that of the Portland, Oregon, plant, the plant presenting a well kept and sanitary appearance, no appreciable odors or smoke being present.

One half of the plant has had alterations made in the interior of the furnaces, the changes being made by a former foreman as an experiment. The present foreman states that he obtains better success in destroying refuse in that half of the furnace which remains in its original condition. The present foreman is well satisfied with the Smith plant.

Since February, 1920, the operation of the Smith plant has been reduced to one shift of eight hours per day with only two furnaces of the four being operated. This was due to the fact that a larger proportion of the refuse is being placed in dumps than heretofore. The high cost per ton consumed in the incinerator which in May, 1921, was \$1.96 per ton, is due to the fact that the plant is not being run to capacity and also to the fact that the payroll is top heavy. The laws of British Columbia require that an engineer be employed on any plant having a steam boiler over 10 H. P. In addition there is employed a weigh scale and office clerk, a functionary not justified by the size of the plant. The staff employed at the plant is entirely out of proportion to the amount of refuse incinerated as shown below:

One engineer.....	\$ 6.00	per day
One assistant.....	5.40	" "
3 men at \$5.10.....	15.30	" "
1 weigh scale and		
office clerk.....	4.60	" "
Total daily wage....	\$31.30	

Minneapolis, Minnesota

Oct. 25, 1921

Make of Plant—Decarie.*Year Built*—1901.*Cost*—None.*Rated Capacity*—160 tons in 24 hours.*Actually Burning*—56.3 tons.*Number of Operators Required*—15 men and superintendent.*Daily Labor Costs*—\$79.00.*Daily Fuel Cost*—\$13.00.*Average Cost per Ton Destroyed*—\$1.63.**Remarks:**

This is the first plant built under the Decarie system of incineration, in which system the refuse is suspended over the fires in a basket of steel pipes, and the furnace sides consist of water jackets of steel plates instead of fire brick. The Minneapolis plant consists of three furnaces housed in a brick building with a concrete stack 210 feet high. There is a forced and an induced draft. The refuse is brought to the plant on flat cars in steel wagon bodies containing four cubic yards. These wagon bodies are hoisted from the flat cars by an electric crane, carried along to position and dumped directly into the furnaces. The cubical capacity of each furnace is such that it can receive three wagon loads or 12 cubic yards of refuse at a time.

The mechanical arrangements for handling the raw refuse are well designed and operated efficiently. However, the ashes and clinker are removed in wheelbarrows to a temporary dump adjacent to the building, and then reshoveled into wagons and hauled some distance to the final dump. This is due to the fact that the plant is poorly located in the center of a level field with no dumping ground nearby.

Between two of the furnaces is a 330 H. P. boiler so arranged as to utilize certain of the heat of the gases of combustion for the incinerator. This boiler is also fired independently, its steam being used to operate three generating units in an adjoining engine room, the current from which is utilized for street lighting, etc. The steam generated from the burning of the garbage is negligible.

Apparently complete combustion is not taking place in the plant as great volumes of black smoke were pouring from the chimney.

The plant itself appears to be in a run-down condition with the furnaces leaking water and considerable debris and refuse on the stoking floor. The superintendent stated that great difficulty was experienced with the furnaces, due to the fact that the refuse would not fall from the basket into the fire, and was only pulled down with great effort; also that the water jacket sides got clogged up with scale and dirt which it was impossible to remove due to the numerous bolts. The superintendent was outspoken in his disapproval of the plant.

Sedalia, Missouri

Oct. 17, 1921

Make of Plant—Nye Odorless.*Year Built*—May, 1921.*Cost*—\$15,000.*Rated Capacity*—24 tons in 24 hours.*Actually Burning*—10 tons per day.*Number of Operators Required*—1 (Colored).*Daily Labor Cost*—\$3.84.*Daily Fuel Cost*—\$2.35.*Average Cost per Ton Destroyed*—62c.**Remarks:**

This Nye plant has been in operation since May 27, 1921. It consists of two furnaces of the Dutch Oven type,

housed in an attractive brick and concrete building with tile roof and steel chimney 50 feet high. The furnaces are fed from the top, the scavenger wagons dumping directly into charging holes. Large dead animals, such as horses and cows, are drawn into the furnaces at the grate level by means of a windlass.

This plant as well as all other Nye plants which I inspected has no forced draft, and the chimney is limited in height. The makers rely on an arrangement of flues to obtain sufficient draft. There appeared to be a sufficiency of draft in this furnace with an extreme high temperature. The more combustible refuse was charged directly onto the grates, while the garbage, night soil, wet materials and animals were placed on one side of the furnace on what is designated as the drying pans or platform made of fire brick. At the time of my visit the furnace contained the carcass of a horse which was almost consumed at my arrival, and had been in the fire about two and a half hours. Due to the extreme high temperature there was no odor whatever from this horse. The attendant informed me that when a special effort was made a horse could be destroyed in 45 minutes until practically nothing remained but the horseshoes. The plant at Sedalia is in a region where a great many carcasses of horses and cattle must be destroyed; the records showed that 191 such had been incinerated without difficulty since June 1, 1921, a working period of practically 130 days, although the furnaces in this plant are comparatively small. Due to the fact that there were so many large animals to be destroyed it was necessary to burn about two tons of coal per week.

There was no odor and very little smoke at this plant.

The Sedalia plant is in the midst of a neighborhood inhabited by colored people, some of the houses being within 30 to 100 feet. A high school for colored children is distant but 1,500 feet.

Tulsa, Oklahoma

Oct. 28, 1921

Make of Plant—Nye Odorless.

Year Built—October, 1921.

Cost—\$25,000 (for furnaces only).

Rated Capacity—96 tons in 24 hours.

Actually Burning—

Number of Operators—

Daily Labor Cost—

Daily Fuel Cost—

Average Cost per Ton Destroyed—

See
below

Remarks:

The Tulsa plant at the time of my visit, was just being completed by the Nye Odorless Crematory Company, the first fire having been built in the furnace on the day of my inspection. This plant which is housed in an attractive brick building was originally built as a Universal Reduction Plant by the United Engineering Works of Chicago, Illinois, at a cost to the city of \$42,000. According to the city authorities the reduction works was only operated for three days when it proved to be such a nuisance and so expensive to operate that the idea of reduction was abandoned. Later a contract was let to the Nye Odorless Crematory Company to dismantle the furnaces and machinery of the reduction works and to install in the existing building two of the Nye furnaces with a total capacity of 96 tons per 24 hours. It was necessary to remodel entirely the interior of the building in order to accommodate the Nye furnaces. The

building is fireproof throughout with a brick chimney 80 feet high and six feet in diameter. The furnaces are arranged to burn natural gas when found necessary. There is no forced draft provided, it being the contention of the Nye Company that none is necessary in their plants.

A considerable amount of night soil must be destroyed in the plant at Tulsa, a most difficult type of refuse to burn. The Nye Company, however, were so confident of the ability of their plant to destroy the night soil as well as all other refuse, that they built the plant with the understanding that no payments whatever were to be made until after a successful operating test of 60 days.

The fact that the plant at the time of my visit had recently been completed and was just being started up, afforded an excellent opportunity for a thorough inspection of the type and nature of construction. I found that the materials used were of the very best and that the workmanship was excellent, it was apparent that there was a sincere desire on the part of the contractors to erect an incinerator that would reflect credit on their organization.

This plant is located within 1,000 feet of the city water works pumping plant, which pumps from the Arkansas River. There are a number of good residences within 800 feet of the plant.

Due to the fact that the plant had not been in operation it was impossible to obtain data as to operating costs.

Waxahachie, Texas

Oct. 29, 1921

Make of Plant—Nye Odorless.

Year Built—March, 1921.

Cost—\$8,000.

Rated Capacity—12 tons in 24 hours.

Actually Burning—4 tons in 8 hours.

Number of Operators—1 (Negro).

Daily Labor Cost—\$2.32.

Daily Fuel Cost—8c.

Average Cost per Ton Destroyed—60c.

Remarks :

The plant at Waxahachie is of the smallest size built by the Nye Odorless Company, with a capacity of $\frac{1}{2}$ ton per hour. There is but one furnace, which is housed in a small fireproof brick building about 25 feet square with a steel chimney 35 feet high. The building is of an attractive design, with a tile roof. Waxahachie is a small city of 8,000 population so that the plant is sufficiently large to accommodate the refuse produced.

As in other Nye plants, the refuse is dumped directly from the scavenger wagons into the top of the furnace. The only fuel used is a small amount of wood, two cords having been burned since April 1st. There is no segregation of the refuse, the garbage being consumed with the other material. At the time of my visit a dead horse was being burned, and I was unable to detect any odor resulting therefrom. The city charges a fee of \$3.00 for destroying a dead horse or cow.

The plant was being operated for eight hours per day by one man, a negro, who also attended the city sewage disposal plant nearby. The incinerator plant appeared to be operating efficiently with an intense heat maintained in the furnace, regardless of the fact that there was no forced draft or tall chimney.

The city sanitary inspector, Mr. H. S. Strickland, was very enthusiastic about the results obtained from the Nye plant.

(Continued on page 136)

HOW THE CITY MANAGER FORM OF GOVERNMENT IS WORKING IN OHIO

Written expressly for Pacific Municipalities

By E. E. PARSONS

City Manager of Springfield, O.

I am a thorough convert of the city manager form of government, not on account of being a manager at the present time, but because I was assistant city engineer of the City of Springfield, under the old Mayor and Council Plan, which I believe entitles me to make a comparison.

Some fifteen years ago, I went out into the world and worked for private corporations. Twelve years of that time was spent with the Pennsylvania R. R., learning the practical side of civil engineering and executive work. On returning to Springfield as city manager, I brought with me the private corporation business methods, which I have found applicable to all occasions.

I have questioned both the rich and the poor, the manufacturer and the laboring man, and as yet I have not found one person who condemns the new government. I was advised by one of the big labor leaders that we have the best government to-day. The reason why the city manager plan is higher in quality of government, is because it is more democratic, more sensitive and more obedient to public opinion. There are two very important and superior features about this plan: One is the short ballot principle, and the other the unification of powers.

In using the short ballot, you are given time for adequate and thorough examination of all the qualifications of the candidates. In other democratic countries, such as England, they elect one officer in one day. In the United

States, they elect 10, 20, 30, 40, 50 officers in one day and the consequence is that we are unable to obtain the qualifications of all participants, therefore we resort to unauthentic information sent out by the politicians. The short ballot is the people's ballot and the long ballot is the politician's ballot. Most city manager charters stipulate a short ballot. In the city manager form of government they elect three Councilmen or Commissioners at one time, and two at another, giving ample opportunity to obtain all data necessary regarding the candidates.

The unification of powers, or the basic merits of city manager government, means the reposing of all powers in one single place, such as the Council or the Commission. This gives to the whole mechanism one single, controlling, composite mind, which is essential to success of any organism. The Mayor and Council Plan does not give the unification of powers, but it permits deadlocks, and the passing of the buck. It is a direct violation against the City Manager Plan to give to the Mayor the power to veto the acts of the Council or the Commission. If the Mayor was given this power it would be a two-headed government instead of a one-headed government.

The advantage in having a city manager is obvious to most any business man. For council many minds are needed; for execution one single directing head is required.

It is essential to the plan that the

city manager be appointive, even a freak feature of one City-Manager Charter, which subjected the manager to direct recall by the people, was damaging to the principle involved, since it diverted from the responsibility of the Council or Commission. He should be a servant of the Council or Commission, or else they cannot be responsible for his acts. He in no way should be independent of it.

Making possible that the city manager may be hired from out of town is not only helpful in getting trained service, but is highly important to the growing profession of city management. If a city manager could not look elsewhere for a similar position, in case he is displaced, or outgrows his city, a powerful incentive toward the development of personal efficiency would be lost. The fact that the city manager may be hired from out of town is not only helpful in getting trained service, but it is highly important to a smoothly running mechanism.

In all plans involving elective executives, long tenors are rare. To rid us of the amateur and the transcendent executives, such as some of our mayors are and to facilitate the substitution of experienced executives in municipal administrations is enough in itself to justify the coming of the city manager plan.

If one is so fortunate as to get the new government they will have gotten their own government in such shape that they can hold their own with other private corporations in competition for competent executive talent providing these attractive conditions. Tenor for as long as the individual makes good, a chance for advancement and a professional reputation and a chance to achieve things by familiar straightforward unencumbered business methods.

To-day the winning principle is to

simplify and clarify the processes of government, so that everybody can well understand and take part effectively without special attention or effort. Politics under the new form of government are primitively bare and simple, so that there is nothing for the politicians to specialize in. Every citizen can and will pick out his own favorite five candidates without referring to party label or ticket, or without letting some interested person guide his hand for him. The candidate has no one to look forward to, only the voters. The old intermediary machine which has its ready-made tickets will have no function. The non-political ordinary business citizen who counts for so little in old politics will find himself exercising his full control under the new plan.

The city manager plan is the most successful form of government since the writing of the Constitution of the United States. It has been specifically proven, both in private and public business, that when authority is controlled by one head the results are obtained more quickly. Some of you may state that the results obtained by government officials are wasteful. I will agree that this statement would be correct provided the officials were elected on a partisan ballot. It is thoroughly understood that when a partisan official assumes office he has political obligations to fulfill and the party of which he is a member will no doubt receive a majority of the favors. Furthermore, when the office holder takes office he is elected for a certain definite time and if he or she is not of an energetic type, the public must suffer for the entire term on account of the inactivity.

The Commissioners are elected on a non-partisan ballot with the provision stipulating that no effort or the spending of money will be allowed. The rate of pay is so small that the individual will

not consider running for the office for financial gain. I would suggest that if you have a Commission to elect that they be elected on the basis of a minimum salary. After the Commissioners take office they appoint a city manager to serve at the will of the Commission. If the Commission should so desire at the next meeting night after employing the city manager, they can very well discharge him. I consider this advantageous from the point of view that it keeps the city manager on his toes and make him more efficient. I will venture to state that 99% of the private corporations in the United States to-day employ their officials in the same manner and were it proper and best to employ them by contract for a certain definite term, the plan would have been adopted long ago. In adopting the city manager plan you are placing your city's business on a private corporation basis. The natural trend of humanity is in the line of the least resistance and if an individual who is not industrious or competent should obtain a position by politics, he will endeavor to use politics to hold his position. But if he is capable and industrious and there are no political wires to pull, he will produce the results.

A campaign was waged in Sacramento, California. The Chamber of Commerce in that city sent out letters of inquiry to private citizens in different cities where city manager form of government was in control. It was a significant fact that in the letters of response there was a sweeping expression in favor of the city manager plan and in not one instance was there declared that the plan was a failure. On the contrary there were many very enthusiastic endorsements of the method. Thus it was shown that there is nothing widely theoretical about the plan. It actually works and works to the advantage of all the citizens. This after all is the

greatest essential of good government. Private corporations cannot be successful unless the majority of voting stockholders are loyal and if all of you owned voting stock in a private concern it would be your personal endeavor to see to it that such officials were appointed as would bring prosperity to your company. The same condition prevails with the cities. Every voter is a stockholder in the municipality and it is to his or her interest to see to it that officials are elected who will be benefiting to the city. If you purchase a property in the city in which you live, you are increasing your obligation to that municipality and it is therefore to your interest to help make the city beautiful and to give help to every civic movement. In my opinion there are just three ways to eliminate the wasteful and inefficient methods of municipalities: Elect your officials on a non-partisan ballot and minimum salary wage and your appointive offices for no definite term.

At a recent meeting which was held in Columbus, Ohio, by the members of the Ohio State Tax Commission I was very much surprised to learn that they were well aware of the fact that Springfield was in better financial condition than any city in the State of Ohio. Why? Because we have had the city manager form of government since 1914 and as yet the people are not dissatisfied. Springfield is a city of 61,000 people and we only have a tax rate of \$17.60 per thousand.

The majority of citizens are not familiar with the inner workings of their municipality because as a rule their time is so employed with other affairs that they are not in position to make an investigation. It is remarkable to one who has not been a resident of the City of Springfield for a number of years to note the advancement which has been made, as it is very apparent.

Also it is realized that almost one-half of the value of all improvements that have taken place during the history of Springfield (or since it became a corporation in 1850), have been made during the last eight years, or under the city manager form of government. I will endeavor to give a few of the most important improvements that have been made since the commission-manager form of government has been in effect and in my opinion one can well see the advantages of the new government.

The Commission ordered and the Public Utilities removed all wires and poles from the streets in the center portion of the city facilitating the handling of fires and relieving congestion in the down town district.

Six and one-half miles of single track of street railway extensions have been made.

Two additional parks or 25 acres of land have been turned over to the city for park purposes.

Extensive improvements have been made in the Water Works Department. Our water rates compare favorably with the water rates along lake front where it is cheap. During the year of 1920 we paid \$6.00 per lineal foot for concrete pipe not installed; in 1921 we manufactured our own pipe at a cost of \$1.70 per lineal foot making a saving of \$4.30 per lineal foot or \$25,800.00 for 6,000 lineal feet of pipe to be laid.

An extensive lighting system has been installed and is composed of 340 cluster lights which has been commented upon as being one of the most beautifying elements in the City of Springfield, Ohio. It might be well to state that in 1913 under the Mayor and council plan the city had 566 electric arc lights and 950 gas lights for which the city paid \$54,003.00, and in 1920 the city had 340 cluster lights, 683 electric arc lights and 998 gas lights for which they paid

\$54,211.00. It can be readily seen that the city is receiving more artificial light than in 1914 with a reduction in rates which was no doubt brought about by the influence of the Commission.

Twenty-seven miles of cement sidewalks and seventeen miles of cement curb and gutter have been laid at a cost of \$181,000.00 or 30% or 3-10 of the total value of cement sidewalks, curb and gutter ever laid during the history of Springfield. Thirty-seven miles of sewers have been constructed at a cost of \$530,000.00 or 40% or 2-5 of the total value of all sewers ever constructed in the city of Springfield, Ohio.

Twenty-two and one-half miles of streets or 484,000 square yards of paving have been placed at a cost of \$1,200,000.00 or 60% or 3-5 of the total value of all paving ever placed in the city of Springfield.

The unencumbered balance of the city in 1913 under the Mayor and Council was \$664,000.00, and to-day the unencumbered is \$1,264,000.00 or approximately 100% or double that of 1913. The valuation of the city in 1914 was \$58,000,000.00. In 1921 it was \$93,000,000.00 or 62% increase. The tax rate granted the city by the Budget Commission for all city purposes in 1914 was \$6.30 per \$1,000.00 which netted the city \$365,000.00.

In 1921 the tax rate as granted the city for all purposes was \$4.30 per \$1,000.00 which nets the city \$400,000.00 an increase of 9%. We received from taxes per capital in 1914 \$7.30; in 1921 we would have received (if it had not been for the additional two mill levy) \$6.56 per capita or 0.74 per capita less than was received in 1914. We should bear in mind that the population of Springfield in 1914 was 50,000 and in 1921, 61,000.

The City Commission in taking over the government from the mayor and

council plan, took with it a debt of \$1,500,000.00. Since that time the City Commission has issued city share bonds to the extent of almost \$1,000,000.00, making a total debt of \$2,500,000.00, and yet to-day the city only owes \$1,680,000.00 or \$180,000.00 more than it did when the new government went into effect in 1914. Since 1914 the city has paid interest on the \$1,500,000.00 of about \$600,000.00; deducting \$180,000.00 from the \$600,000.00 we have left \$420,000.00. In addition to the \$1,500,000.00 debt the City Commission took over a debt of \$120,000.00, which was caused by issuing deficiency bonds, \$60,000.00 of which was a 1912 street lighting bill. If the City Commission had gone into power with a clean slate or no debt they would have had \$420,000.00 plus \$120,000.00 or \$540,000.00 more for current operation. The city has operated on a cash basis during the last eight years. The Commission has always endeavored to issue 10-year serial bonds or short time bonds and one can well see that this government is not making debts for the future generation to pay.

There is no comparison between the mayor and council plan and the city manager plan. There is nothing theoretical about this new form of government.

The old ancient method of voting by a partisan ballot has been in force since the birth of the United States. Can you imagine anything with such age living in a progressive country as this is to-day? I am sincerely hopeful that every municipality in the United States will be electing their officials in the future on a non-partisan ballot. Some people do not believe in evolution; I believe in it to a certain extent. It states in the Bible that we are getting weaker and wiser, therefore we are evolutionizing to a more philosophical stage. What would be the consequence if the Creator

of all things should become neglectful, forget about us, and cease to be efficient? The results would be that the great laws of nature would die and we would be no more. Every living, creeping and walking thing upon this earth is in a state of progress. We are all placed here for a certain purpose, and if we do not perform that function we are doing that which is contrary to God's laws. The incentive which is placed within us by the Higher Power tells us that we must progress and in missing that very thing which we are placed upon this earth to do, we cannot be successful. We are a government of the people, by the people and for the people, and if the government is not successful the people are not successful. I may cite you many countries where the governments are in bad circumstances and the people are in the same condition, but I will only refer to one which you are well acquainted with and that is the government of Mexico which is in bad shape and the people there are poverty stricken. If you do not do your share upon this earth you are detrimental to the community and when you think of the ant kingdom and the bee kingdom with their patience, it is absolutely surprising. You may knock down their houses but they will very patiently build them again. The incentive which is instilled within the queen ant and the queen bee is such as to cause them to run their little tribe efficiently and when one within their midst ceases to perform such functions as are laid out for them they are killed off. We are drifting on toward a higher state of living or a higher state of efficiency, and it is your duty and my duty to see to it that such officials are appointed or elected as will be beneficial to humanity or make this world a more attractive place in which to live.

I have heard people make the state-

ment that the little old red schoolhouse education is good enough for them. One making this statement is not entitled to a better education. I also heard the statement that we received in the little red schoolhouse grammar, arithmetic and spelling and obtained a better education because the students of to-day have so many studies given them that they are unable to learn. Don't you fool yourself about their learning. They will absorb all the teachers give them and in a short time they will be teaching the instructors a few things. I would suggest that if any one who thinks the education of the little red schoolhouse is sufficient, they might attempt to work one of the ordinary problems of the eighth grade to-day. I think they will find that the little red schoolhouse education is a back number. I am not making light or criticizing the red schoolhouse, because I realize it was a necessity in its day,

but now that education is not sufficient for this time, as we have progressed to a higher stage of knowledge. I might take you back to the time of King Solomon, Rameses and Herod. What would they have given for the ordinary conveniences of to-day? They would have given their entire thrones for toilet facilities, furnaces, coal, gas and electricity, the conveniences of the average poor man.

We should cast aside all our old antediluvian ideas and progress with the times and the city manager government is simply a spoke in the wheel of progress and therefore when you increase the efficiency of any institution you are furthering progress. When you know that eight or nine years ago there was only one city manager in the United States and to-day there are two hundred and fifty, you can well see that the city manager form of government is fast taking the place of the old Mayor and Council government.

ASPHALT ASSOCIATION HOLDS ANNUAL CONVENTION

Vigorous protest against further marring the beauty of American highways and interfering with the safety of motor travel by obstructing the view of the tracks in the vicinity of grade crossings with large advertising signs was voiced in a resolution adopted by the annual convention of the Asphalt Association, the national organization of paving producers and contractors, at the National Association Building, 25 West 43rd Street.

Bearing in mind a severe criticism of the dangerously narrow width of American roads uttered by Joseph R. Draney, President of the Association, in his annual address, the convention also adopted a resolution urging a minimum width for highways serving large cities of twenty-four feet so as to afford more room for the increasing traffic. "I have ridden over more dangerous roads in the vicinity of New York," said Mr. Draney, "than one will find, for instance, in the whole of England."

Other resolutions adopted by the convention urged that President Harding take such steps as are necessary for the United States to become a member of the International Good Roads Congress; demanded a reduction in freight rates on asphalt and other road-building

materials so as further to reduce the cost of highway construction and expressed vigorous opposition to a tariff on crude oil in view of the fact that 60 per cent of America's supply of asphalt is now obtained from Mexican petroleum and in view of the further fact that asphalt enters not only into sixty per cent of the roofing materials used in the United States but into practically every type of street and road paving.

"That American cities are making tremendous strides in street paving," continued Mr. Draney, "is indicated in reports from city engineers which show that over 30,000,000 square yards of asphalt equivalent to 1,750 miles of pavement thirty feet wide, were laid on city streets last year. Twenty-three million square yards were laid on state highways and the area laid on county and district roads brought the total for 1921 up to 68,000,000 square yards, enough to build two roads, each eighteen feet wide, the one extending from Augusta, Me., to San Francisco, and the other from Augusta to New Orleans. Despite the industrial depression that existed throughout the year, 1921 was the greatest year in the history of the asphalt business."

RECENT COURT DECISIONS OF INTEREST TO MUNICIPALITIES.

Dedication.

Id.—*Land Dedicated to Park Purposes—Physical Character of Property—Constructive Notice*—Constructive notice that a certain portion of a real estate tract was dedicated to park purposes is not afforded to a person, who has made a loan to the record owner of the tract and accepted a deed of trust as security, by physical facts upon such portion, such as the absence of houses thereon, the presence of pavilions, a fountain and a tennis court thereon, and the circumstance that the land was unsubdivided.

Phillips v. Laguna Beach Co., 37 Cal. App. Dec. 296.

Ordinances.

Statutory Construction—Reasonableness of Law or Ordinance—Power of Courts—The courts have the right to look into a public law or a local ordinance or regulation for the purpose of determining whether, upon its face, it is reasonable or in its operation will be unreasonably burdensome upon the body of citizens to which it may be applicable, and if it is found to be oppressive in its effect when put in operation or violative of any of the fundamental rights of any person or set of persons, it will and should be nullified by judicial fiat as unconstitutional and void, notwithstanding that the legislature or the governing board enacting or adopting such law or ordinance or regulation has passed upon the facts upon which the law or ordinance or regulation is based and made a determination that it is reasonable or that it will not impose unreasonable burdens upon those who come within the purview of its terms.

Hardwick v. Board of School Trustees of Fruitridge School District, 36 Cal. App. Dec. 517.

Public Records.

Public Records—Unapproved Preliminary Estimates and Details in City Engineer's Office Concerning Hetch Hetchy Project—Character of Documents—The preliminary estimates and details made in the city engineer's office of San Francisco in connection with the Hetch Hetchy project, cannot be considered the act or the record of an act of the city engineer or the board of public works, until they have received some official approval, and with such approval lacking, are not of such a character as would constitute them public records.

Coldwell v. Board of Public Works, 62 Cal. Dec. 629.

Id.—*Right of Inspection—Section 1032, Political Code*—Such preliminary estimates and details, although not public records because official approval of them is lacking, are of such character as constitutes them "other matters" within the meaning of Section 1032 of the Political Code, which provides that "The public records and other matters in the office of any officer, are at all times, during office hours, open to the inspection of any citizen of this state."

Id.

Street Law.

Street Law—Change of Grade—Compensation for Damages to Abutting Owners—Procedure—Where a municipality, after establishing the official grade of a street and without instituting any proceeding to ascertain and provide for the payment of the damages caused by the raising or lowering of the level of the street by the change of grade, proceeds to improve the street under the Street Improvement Act of 1911, and reduces it to the official grade, the remedy of the property owners in such a case is not to enjoin the collection of the assessment levied to pay the cost of the work, but to enjoin the performance of the contract prior to the work having been done until damages has been paid, in case the result of such work would cause damage to the abutting property.

Butters v. City of Oakland, 62 Cal. Dec. 215.

Street Law—Resolution of Intention—Plans and Specifications—Description of Work—In proceedings for street work under the Street Work Act of 1885, commonly known as the Vrooman Act, the plans and specifications when prepared must conform to and be consistent with the description in the resolution of intention, and the fact that the plans and specifications include more work than that which is directly described in the resolution of intention is not sufficient to extend the term of the resolution so as to include such additional work.

Ferry v. O'Brien, 37 Cal. App. Dec. 205.

Id.—Street Improvements—Assessments—Notice—Power of Legislature—The legislature has power to authorize an order for street improvement without notice, but it has not the power to authorize an assessment to be made without notice whereby the property owner is given an opportunity to object to the assessment, and to be heard upon his objection or protest. *Id.*

Id.—Street Work Act—Reassessment—Validity of—Invalidity of Original Assessment—A reassessment made in conformity to the provisions of Section 12 $\frac{1}{4}$ of the Street Work Act to replace an original invalid assessment for the same work, is valid. *Id.*

Street Law—Improvement Act of 1911—Sufficiency of Resolution of Intention—A resolution of intention to make a street improvement under the Improvement Act of 1911 is not insufficient to confer jurisdiction to order the work done because, after describing the proposed work, it excepted "from said work and improvement any part thereof already done to official line and grade and satisfactory to the Superintendent of Streets of said City of Vallejo."

Powers v. Holmes, 36 Cal. App. Dec. 870.

Street Law—Improvement Act of 1911—Size of Assessment District—Exemptions from Assessment—Power of Municipality—The governing officials of a municipality have the power under the Improvement Act of 1911 to include the entire municipality described by its exterior boundaries within the district to be benefited and assessed for the improvement, and to exclude from the assessment district designated lots and blocks devoted to school purposes, and the fact of exemption of the designated school properties from the assessment does not in any way affect the size of the boundaries or description of the district itself.

McGarry v. Ellis, 36 Cal. App. Dec. 456.

Taxation.

Taxation—Assessment and Taxation of Corporate Franchises—Manner of Making Assessment—Compliance With Constitution—Where the legislature, in a statute expressly enacted for the purpose of carrying into effect the provisions of Section 14, Article XIII of the state constitution, relating to the assessment of franchises "in the manner to be provided by law," provided for the furnishing to the state board of equalization of information that the board might determine therefrom the value of franchises, in so far as the prescribing of the "manner" in which assessments are to be made imports the regulation of details of administration, the legislature has complied with the constitutional mandate that such administrative machinery for making assessments be provided by law.

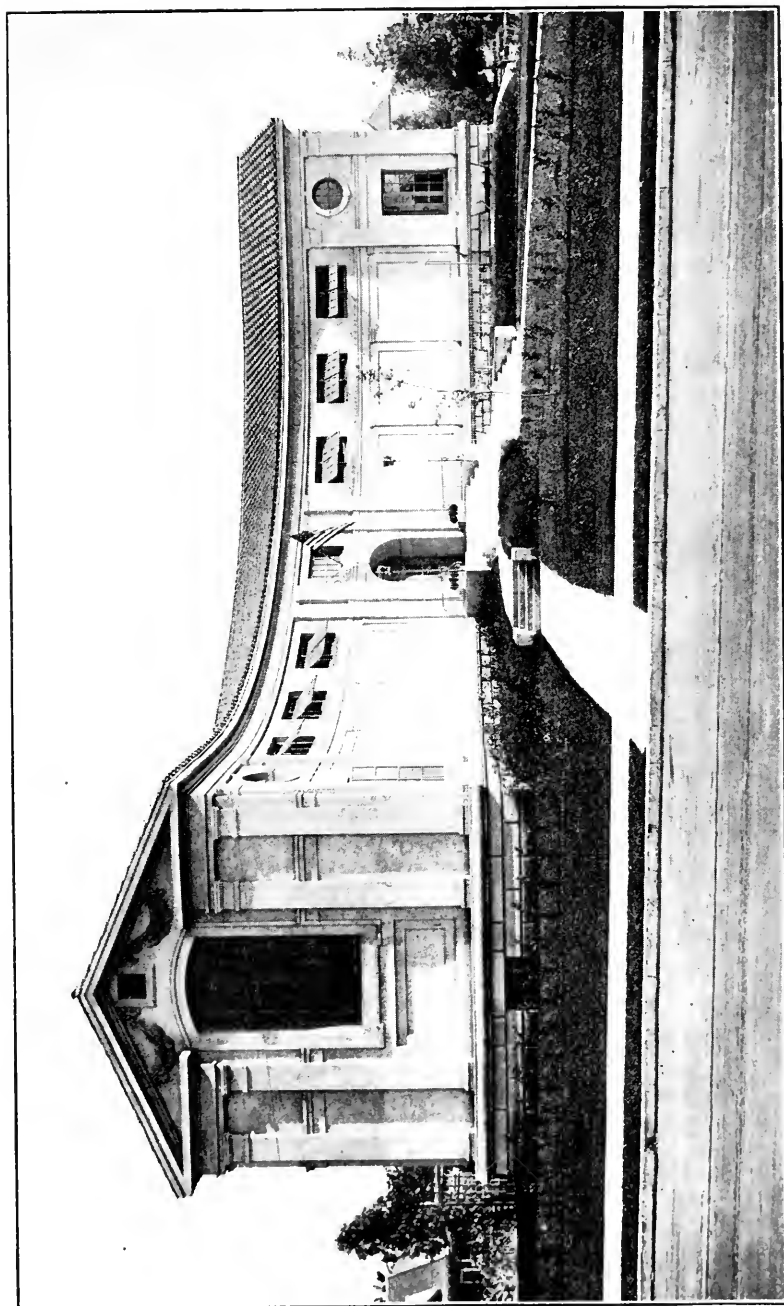
The Utah Construction Company v. Richardson, 63 Cal. Dec. 12.

Id.—Performance of Duties by Assessing Officers—Presumption—Regularity and Correctness of Assessments—It is a rule applicable to assessors and to boards having assessing powers that it is presumed that the assessing officers have properly performed the duties entrusted to them and, consequently, that their assessments are both regularly and correctly made.

Mandamus.

Mandamus—Repeal of Ordinances Adopted as Result of Fraud—The law does not specially enjoin legislative bodies to repeal ordinances which have spring from their counsels as the result of frauds, no matter how strongly it may be asserted that it is as much their moral duty to repeal them, once passed, as it was their moral duty not to have enacted them originally; and the performance of such moral duty may not be compelled by mandate.

Ramsay v. Cullen, 37 Cal. App. Dec. 32.



A BEAUTIFUL EXAMPLE OF LIBRARY ARCHITECTURE
Lincoln Heights Branch Library at Avenue 26 and North Workman Street, Los Angeles.

GOVERNMENT MOTION PICTURES BOOST GOOD ROADS MOVEMENT

In line with its policy of informing the public, especially those who pay the taxes, as to the economies that may be effected in the construction of highways, as well as the proper methods of construction, the United States Government through the Bureau of Public Roads, Department of Agriculture, has just completed for free distribution and use in motion picture houses as well as at conventions, chautauquas and educational conferences throughout the country, two reels of pictures showing in detail the construction of the various types of asphalt roads. The pictures were exhibited for the first time at the recent American Good Roads Congress in Chicago.

The pictures were taken last summer in New York, New Jersey, Pennsylvania and other States under the direction of E. J. Wulff, senior highway engineer, U. S. Bureau of Public Roads, and E. J. Kelly of the Motion Picture Division, United States Department of Agriculture. The pictures were produced particularly for the purpose of showing how the best results may be obtained in asphalt construction. They are loaned to responsible parties free of charge, except for transportation costs.

The first reel, entitled "Building Bituminous Roads," indicates the wide application of bituminous materials in highway construction. It shows the character of the bituminous materials and demonstrates the principal laboratory tests used in determining their suitability for the various types of roads to meet various climatic and traffic conditions. A portion of the reel shows in detail all the various steps that should be taken in surface-treating a macadam pave-

ment. This scene opens with a large motor truck-distributor spraying the bituminous material upon a macadam surface in the suburbs of Philadelphia, Pa. The distributor is followed closely by a horse-drawn wagon spreading the stone chip covering. The bituminous macadam pavement is a type much superior to plain or surface treated macadam. In its construction the asphalt is treated and applied either by mechanical or by hand distributors.

The use of the small hand pouring pots in applying the asphaltic binder is demonstrated on a road near Pittsburgh, Pa. This demonstration is followed by views showing the mechanical distribution of the asphalt by motor trucks on a project in Westchester County, near New York City. The trucks are first shown loading at a railroad siding from huge tank cars. They then leave for the road where the material is applied under pressure at the rate of one and one-half gallons to the square yard. Laborers are pictured covering this material with stone chips. A powerful roller then compacts the pavement. The road is then shown by the passing of traffic to be ready for immediate use. According to engineers one of the big advantages of asphalt pavements is that they can be opened to traffic as soon as constructed.

The second reel, entitled "Building Mixed Asphalt Pavements," shows methods used in constructing both asphaltic concrete and the sheet asphalt types of pavement. This reel contains views of plants at Pittsburgh, Pa., and Columbus, N. J., where the stone, sand and asphaltic binder are heated and mixed. The "mix" is loaded upon trucks and hauled to the

road. Here it is spread with rakes and then compacted by a roller. This picture shows that the mixed types may also be opened to traffic immediately after their completion. The pictures demonstrating the construction of asphaltic concrete roads were taken on a new road under construction between May's Landing and Pleasantville, and leading into Atlantic City, N. J. The pictures of sheet asphalt construction were taken on a road near Columbus, in Burlington

County, N. J. This county now has sixty miles of sheet asphalt roads on a macadam base. The pictures show in a novel way by means of an animated diagram the relative proportions of sand, stone and asphalt binder in each of the two types of pavement.

The government pictures offer an interesting and instructive addition to any motion picture program. Each reel is approximately 900 feet long and about fifteen minutes time is required for its showing.

WHICH TREES WILL DO BEST IN TOWN AND CITY STREETS?

Oaks are considered by the United States Department of Agriculture to be the best trees for street planting. It is probable that oaks have not been more widely planted because of the prevalent belief that they are slow growers, and because in the North they are rather difficult to transplant. A white oak, however, which is one of the slow-growing varieties, will reach the same height as a sugar maple in the same period of time, and maples have been used much more widely than oaks for street ornamentation, despite many unsatisfactory characteristics.

A new *Farmers' Bulletin*, No. 1208, *Trees for Town and City Streets*, by F. L. Mulford, horticulturist, issued by the United States Department of Agriculture, describes in detail the various oaks for street use in different regions, as well as about 100 other trees or varieties. Elms are given second place in desirability for city streets, and sycamores third. Maples are considered less desirable than has been generally supposed. Except the Lombardy poplar most varieties of poplar are not recommended.

The bulletin, which is available upon application to the United States Department of Agriculture, contains a regional map of the United States and indicates which trees flourish best under the climatic conditions of each region.

Before ornamental tree-planting for town or city streets is undertaken, a number of important points must be given attention. Trees native to one part of the United States may not thrive in another region. Some trees are objectionable because their roots penetrate defective sewers, while others grow their roots so near the surface that they have a tendency to heave or crack sidewalks.

Only vigorous trees that will withstand the dust and smoke of a city should be planted to ornament the streets. The root system should be hardy, not easily affected by unusual soil conditions, by restricted feeding areas, or by root pruning in case street improvements are made. The shape of the top of the tree when full-grown should be suited to the width of the street. The foliage should not be too dense, and should be of a pleasing texture and color. The resistance of the tree to fungi, insect pests, and tree diseases is an important consideration. Trees that bear showy flowers, fruits, or nuts are usually undesirable for street planting.

Palms do not make good shade trees, although they are effective in formal planting. Only in the most southern parts of the country and in western California should evergreen trees be considered for street planting. Mag-

CHAS. T. PHILLIPS

CONSULTING ENGINEER

SAN FRANCISCO

STREET LIGHTING EXPERT

nolias, live oaks, and a few other broad-leaved evergreens may be used in these regions. Where there is lack of sunshine in winter it is desirable to admit all the light possible by using only deciduous trees. The bulletin gives a table showing the differences in fall coloring and the date of dropping of all foliage. Narrow streets, it is pointed out, should be planted with tall slender trees like the Lombardy poplar or small trees. Broad streets may be planted with spreading trees. As a rule, native trees that have been tried out successfully in other towns of the same general locality should be given the preference.

For use within reach of ocean spray or on sandy lands near the coast the red oak and the red or scarlet maple are suitable as far south as Charleston, S. C., while the sweet gum and the live oak are equally good from Norfolk southward and along the Gulf of Mexico. The red oak, sweet gum, red maple, and eastern live oak are all grown successfully along the Pacific Ocean, while the California live oak can be used from San Francisco southward. The trees that endure the most alkali appear to be the bladdernut tree, London plane, peppermint gum, and its variety *Eucalyptus amygdalina angustifolia*, and the *Washingtonia* and other hardy fan palms. The red oak and red maple are worth testing for alkali conditions.

In the heart of a city, where the greatest difficulty is experienced in getting trees to grow the ailanthus will probably thrive when nearly all other kinds fail. The sycamore and the London plane are also good. The Carolina poplar will frequently grow in such

places, and its use may sometimes be warranted. Consultation with the nearest State agricultural experiment station or with the United States Department of Agriculture is frequently advisable before deciding upon extensive street tree-planting.



R. E. GRACE—U. S. Rubber Co.

Mr. Robert Emmett Grace has been appointed manager of the United States Rubber Company, Eureka Fire Hose Department, 812 Seaboard Building, Seattle, Washington.

Mr. Grace was formerly connected with the Shawnee and Oklahoma City, Oklahoma Fire Departments, and is a veteran of the Eureka organization. (Ten years' service).

Mr. Grace and his representatives will lend their cordial cooperation on fire protection matters in the Seattle office territory, comprising States of Washington, Oregon, Idaho, Western Montana and Wyoming.

LIST OF CITIES HAVING PAID THEIR
DUES DURING THE LAST THREE
MONTHS

Alameda.....	\$ 40.00
Anaheim.....	30.00
Azusa.....	20.00
Chula Vista.....	20.00
Concord.....	10.00
Daly City.....	30.00
Eagle Rock.....	20.00
El Monte.....	20.00
El Paso de Robles.....	20.00
Hanford.....	30.00
Huntington Park.....	30.00
Inglewood.....	30.00
La Mesa.....	20.00
Larkspur.....	10.00
Merced.....	30.00
Mill Valley.....	20.00
Monrovia.....	30.00
Montague.....	10.00
Orange.....	30.00
Oxnard.....	30.00
Pittsburg.....	30.00
Oomona.....	40.00
Richmond.....	40.00
San Diego.....	50.00
Total.....	\$660.00

This month we welcome to our advertising columns the American-La France Fire Engine Company, the peer of fire fighting apparatus manufacturers. It is with pleasure that we present to our readers the opportunity to view their tried and true products.

Ordinances Wanted

Help us keep our library of Ordinances complete by sending us the new ordinances as passed by your Board of Trustees.

DIVISION OF COSTS IN HIGHWAY
CONSTRUCTION

What part of the cost of a road goes into grading and structures which are more or less permanent and what part goes into the paving which may eventually wear out?

This question is answered fully by statistics compiled by the Bureau of Public Roads of the U. S. Department of Agriculture on 1,350 completed Federal-aid roads involving 7,500 miles of road at a total cost of \$112,000,000. Of the total cost, 21% went into grading, 14% structures, 62% paving and 3% for engineering. These are the average figures for the whole of the United States and there is considerable variation in different sections.

In the Middle Atlantic States where grading is not heavy and paving must be built for heavy traffic the cost of the paving rises to 75% and the grading and structures amount to 15% and 9% respectively.

In the Mountain States the problem is very different much of the work being new construction with heavy grading and where the highest type of surface is not necessary. In this group of States the cost of grading amounted to 33% structures 21% and paving 41%. The percentage for California in 1922 will probably be somewhat less than 25% for paving only.

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EDWARD GLASS

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF
CONGRESS OF AUGUST 24, 1912

of PACIFIC MUNICIPALITIES and COUNTIES published monthly at San Francisco for April 1, 1922.
STATE OF CALIFORNIA.

City and County of San Francisco.

Before me, a Notary Public, in and for the State and county aforesaid personally appeared Wm. J. Locke, who, having been duly sworn according to law, deposes and says that he is the editor of the Pacific Municipalities and Counties, and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:
Publisher, A. Carlisle & Co., 251 Bush Street, San Francisco.
Editor, Wm. J. Locke, Pacific Building, San Francisco.
Managing Editor, Wm. J. Locke, Pacific Building, San Francisco.
Business Manager, Wm. A. Knapp, Pacific Building, San Francisco.
2. That the owners are: (Give names and address of individual owners, or, if a corporation, give its name and the names and addresses of stockholders owning or holding 1 per cent or more of the total amount of stock.)
Mason & Locke, Pacific Building, San Francisco.
3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.) None.

WM. J. LOCKE.

(Signature of editor, publisher, business manager or owner)

Sworn to and subscribed before me this 4th day of April, 1922.

B. M. JACKSON.

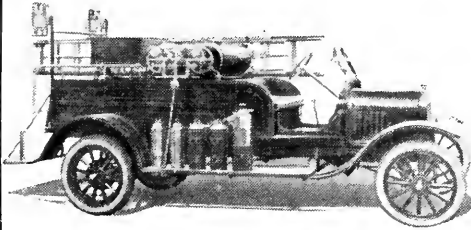
(My Commission expires Sept. 19, 1923)

(SEAL)

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TITLES OF NEW ORDINANCES RECEIVED

Plumbing and Electrical Wiring. An amendatory ordinance relating to conducting the business of plumbing and electrical wiring. Venice, No. 861.

Licensing. An ordinance for licensing and regulating the carrying on of certain professions, businesses, trades, callings and occupations, providing a penalty for the violation of its terms; providing for the inspection of bakeries and laundries; and repealing all ordinances in conflict therewith. Santa Cruz, No. 1269.

Plumbing. An ordinance requiring the registration of master plumbers; fixing a license for those engaged in the plumbing business; regulating plumbing and drainage work; creating the office of plumbing inspector, defining his duties and fixing a fee in payment thereof. Redwood City, No. 224.

Prohibition Enforcement. An ordinance prohibiting the manufacturing and sale of intoxicating liquors and providing penalties for the violation thereof and regulation of soft drink establishments. Cloverdale, No. 56.

Party Wall. An ordinance granting an easement and authorizing the President of the Board of Trustees and the City Clerk to enter into a party wall agreement on behalf of the city. Redondo Beach, No. 587.

Highway. An ordinance permitting the Board of Supervisors to use a portion of an open public street within the Town limits for the purpose of constructing and maintaining thereon a highway as a part of the County Road System. Hayward, No. 190.

Licensing and Impounding of Dogs. An ordinance providing for the licensing and impounding of dogs, and for the disposal of unlicensed dogs. Cloverdale, No. 57 N. S.

Amusement Places. An ordinance regulating certain places of amusement. Pasadena, No. 1970.

Zoning. An ordinance of the City of Pasadena establishing in said city zones of districts and regulating therein the use of property and height of buildings, providing for the enforcement and prescribing penalties for the violation thereof. No. 1982.

Prohibition Enforcement. An ordinance of the City of Pasadena regulating the sale and transportation of Alcoholic Liquors. No. 1971.

Smoking. An ordinance of the City of Pasadena prohibiting smoking upon street cars and in other places. No. 1968.

Dance Halls. An ordinance of the City of Pasadena relating to public dance halls. No. 1977.

Licensing. An amendatory ordinance providing for licensing and regulating the carrying on of certain professions, trades, callings and occupations. Pasadena, No. 1976.

Prohibition Enforcement. An ordinance prohibiting the sale, manufacture, transportation or unlawful possession of intoxicating liquors, and providing penalties for violation hereof. Hayward, No. 191 N. S.

Gambling. An ordinance against keeping or permitting to be kept within the county, and outside the corporate limits of any city, places for playing certain games for money, checks, chips, credits, or any other thing to be thereafter converted into money, or the buying and selling of same, and preventing gambling for money, checks, chips, credits or any thing to be converted into money, and providing for the closing of pool halls and billiard parlors and all soft drink saloons, establishments or places in the county, outside the corporate limits of any city. Tuolumne County, No. 110.

Gauze Masks. An ordinance repealing an ordinance requiring all persons to wear gauze masks while on streets, or at public gatherings. El Dorado, No. 88.

Plumbing. An ordinance governing the construction of plumbing and providing for the appointment of an inspector thereof. Merced, No. 208.

Fire Limits. An ordinance establishing fire limits, regulating the construction, etc. of buildings, and regulating the maintenance of combustible material. Cloverdale, No. 58 N. S.

Meat Inspection. An ordinance forbidding the sale of meats within the county without the stamp of the State Meat Inspector or the United States Meat Inspector. Kings County, No. 124.

Prohibition Enforcement. An ordinance prohibiting the manufacture, possession, transportation, sale gift or furnishing of liquid with an alcoholic content in any other manner or to any greater extent than is permitted by the laws of the United States of America. Ferndale, No. 132.

Parking. An ordinance regulating the parking of vehicles in the Town of Walnut Creek. No. 30.

Prohibition Enforcement. An ordinance prohibiting the sale, manufacture, unlawful possession or transportation of intoxicating liquors. Gridley, No. 76.

CITY OF OAKLAND INSTALLS NEW VITRIFIED SEWER PIPE

Some 3,000 feet of vitrified sewer pipe is being installed in the lower section of Broadway, Oakland. The pipe which ranges from 10 inches to 18 inches in diameter is being furnished by the Gladding-McBean Co., of San Francisco, vitrified products manufacturers. The estimated cost of the pipe is \$2,800.



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(Continued from Page 120)

Beaumont, Texas

Oct. 31, 1921

Make of Plant—Nye Odorless.*Year Built*—July, 1921.*Cost*—\$10,000.*Rated Capacity*—24 tons in 24 hours.*Actually Burning*—14 tons.*Number of Operators*—3 (Negroes).*Daily Labor Cost*—\$7.20.*Daily Fuel Cost*—69c.*Average Cost per Ton Destroyed*—56c.**Remarks:**

The Nye plant at Beaumont is one of the smaller types, having a single furnace with a capacity of one ton per hour. This plant has been in operation for four months and according to City Manager George J. Roark, has proven so satisfactory that a contract has been signed for a second plant of the same size to be erected in a different part of the city. The building is of brick and concrete with a tile roof and a steel chimney 55 feet high. The building is attractively designed. The plant is located within two blocks of the main business district and immediately adjacent to a police station. There are homes of white people directly across

the street, as well as factories and warehouses close by.

The furnace is not equipped with a forced draft or oil burners. However a limited amount of crude oil is poured into the furnace whenever the refuse is especially wet. This oil is obtained at a very low price from the nearby Spindle Top Oil district. The total amount of oil used in this manner is about twenty-five gallons per day, the cost being about 3c per gallon.

At the time of my inspection the furnace was in full operation with an intense heat developed. The unsegregated refuse is fed into the top of the furnace, and the clinkers and ashes removed from below and hauled away to the dumps, there being no area adjacent where a fill could be made. At the present time the city is burning about 14 tons of refuse per day in the incinerator in a working day of 8 hours, and dumping about 20 tons of refuse per day in outlying fills, pending the construction of the second plant.

There were no odors noticeable from the furnace at the time of my visit, and no smoke escaping either from the furnace or the chimney.

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Baton Rouge, Louisiana

Nov. 1, 1921

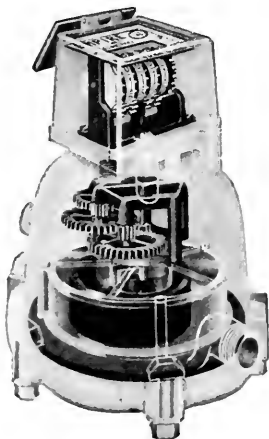
Make of Plant—Nye Odorless.*Year Built*—1914.*Cost*—None.*Rated Capacity*—24 tons in 24 hours.*Actually Burning*—6 tons in 8 hours.*Number of Operators*—2 (Negroes).*Daily Labor Costs*—\$4.00.*Daily Fuel Costs*—None.*Average Cost per Ton Destroyed*—67c.**Remarks :**

The City of Baton Rouge, Louisiana, has two Nye Odorless incinerators built in 1914. These plants are in different locations, one being placed just inside the levee of the Mississippi River and the other near the opposite boundary of the city. These plants have a capacity of only one ton per hour each. The buildings are of the very cheapest construction with corrugated iron sides and roof. The furnaces

are not the latest type of Nye furnace, but are built in accordance with the fundamental principles of that type. These plants have been allowed to deteriorate and are in a poor condition, although they are in continuous daily operation. No forced draft is used, dependence for draft being placed in steel chimneys forty feet high. No fuel is used other than the refuse, which is brought to the plants in an unsegregated condition. Certain of the brick work surrounding the furnaces has been allowed to become displaced, and apparently no attempt made by the city authorities to make the proper repairs. The maintenance and operation of the plants seems to be left entirely to the negro attendants and, as a consequence, the plants present a very unattractive dilapidated appearance, nevertheless they are disposing of large quantities of refuse. There was

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a considerable amount of smoke and odors emanating from the furnaces, due apparently to the fact that the furnaces were not so operated as to maintain temperatures of the requisite height.

Plant No. 2 is a few hundred feet from the Baton Rouge municipal abattoir where all the butchering in the city is required to be done. The intestines and offal from this abattoir are all destroyed in the nearby Nye plant. This nature of refuse is undoubtedly one of the most difficult types to destroy by incineration, yet it is being accomplished in this dilapidated, poorly operated Nye plant. In addition to the abattoir offal I was informed by the attendant that over 300 horses had been destroyed in the No. 2 Nye plant since January 1, 1921, an average of one horse per day. At the time of my visit there was a horse in the furnace,

from which there was a very marked stench noticeable. From the appearance of the fire there was a temperature present of not over 600 or 700 degrees F., which resulted in the odor. If the necessary repairs had been made to the furnace and efforts made to maintain a high temperature, this odor undoubtedly would have been eliminated.

New Orleans, Louisiana

Nov. 2, 1921

Make of Plant—Decarie.

Year Built—1915-16.

Cost—\$35,000.

Rated Capacity—36 tons in 24 hours.

Actually Burning—8 tons in 8 hours.

Number of Operators—6.

Daily Labor Cost—\$25.20.

Daily Fuel Cost—24c.

Average Cost per Ton Destroyed—\$3.19.

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Remarks:

The Decarie plant at New Orleans is located in the suburb of Algiers, just across the Mississippi River from New Orleans. This plant is considered by the makers of the Decarie incinerator to be an example of their finest product. It is located just inside of the Mississippi River levee on a street in a modest residence district. There are houses within a hundred feet with but little complaint. There was no objectionable odor at the time of my visit. The building is of an attractive brick construction with a radial brick chimney 125 feet high.

There is one furnace of the typical Decarie design, the refuse being suspended above the fire in a basket of water cooled pipes. The furnace walls consist of a water cooled steel jacket. The plant is equipped with forced and induced draft fans. About six months ago, Mr. Decarie, the original inventor of the Decarie system, in an attempt to improve the efficiency of the Algiers plant, constructed a crude Dutch Oven furnace adjacent to the original furnace with an idea of burning therein the more combustible refuse and fuel. He also lined the original Decarie furnace with fire brick in order to increase the

temperature. It was his idea that the heat and hot gases from the Dutch Oven being conducted into the original Decarie furnace would facilitate the combustion. The present city engineer, Mr. John Klorer, states that the experimental construction did not prove successful, although it is still in place.

The plant and equipment is well designed for the handling and disposal of the refuse, although the machinery in view of the small capacity of the plant is evidently too elaborate for economic operation. The refuse wagons drive into the building at the ground level and are weighed on a platform scale; the removable wagon bodies are then hoisted by means of a 3-ton double-trolley electric travelling crane and carried along to place and dumped into the furnace hopper. This requires one man to operate the crane and one man to attend to the dumping, besides four men below attending to the fires and wheeling away clinkers and ash. It is evident that the payroll for this plant is top heavy, resulting in the abnormal cost of \$3.19 per ton of refuse destroyed. This cost per ton is practically all for labor, as but \$76.00 worth of coal has been used in twelve months.

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The debris coming from the furnace contained a considerable amount of unburned particles or rags and other small objects, such as onions, showing that the temperature was not sufficiently great. There was also a large amount of light brown smoke coming from the chimney.

The plant was maintained in a neat, orderly condition with accurate records kept of the amount of refuse burned from day to day. From an inspection of the books I found that the average refuse destroyed per day from October 13th to October 31st was eight tons.

There being no dumping ground nearby it is necessary for all of the clinker and ashes from the plant to be shoveled into wagons and hauled away, an expensive process.

This plant disposes of the refuse from the suburb of Algiers only and was built as an experimental plant. The City of New Orleans proper still dumps its refuse at a series of dumps within the city limits. The United States Department of Public Health has ordered this dumping ceased and I was informed by city engineer, John Klorer, that the City of New Orleans would undoubtedly

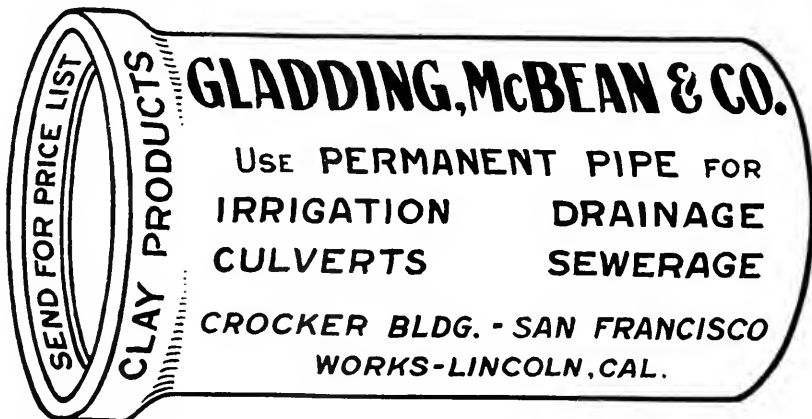
proceed to construct five more Decarie plants in the near future.

Conclusions

During the investigations of refuse incinerators, the writer has visited eighteen cities and inspected twenty-three plants which embodied nine distinct makes. Four of the plants were designated as the Fred P. Smith Destructor; four as the Decarie Incinerator; six as the Nye Odorless Crematory; two as the Collins and Pellet Incinerator; and seven as different makes of the distinctly English Incinerator, including one Thackeray plant, one Sterling plant, two Heenan-Froude plants, and three Meldrum plants.

English Incinerators

Of the distinctly English plants inspected the three Meldrum incinerators at Seattle have been abandoned and sold for junk on account of excessive operating costs. Of the two Heenan-Froude plants the one at Vancouver, B. C., was closed down in 1916, also due to excessive operating costs. The Heenan-Froude plant at Islais Creek, San Francisco, has never been operated since its final test in 1914, it being contended by



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city officials that better and more economical results can be obtained by the operation of the obsolete Thackeray plant constructed in 1897. The Sterling plant at Berkeley, California, has proven very expensive to operate and very exhausting on the stokers and operators. The old Thackeray plant, still in use at San Francisco, is obsolete in design and so far as known no other plants of this make have been constructed since the erection of this plant in 1897.

As a result of the above mentioned experiences with the distinctly English make of incinerator, it is concluded that they do not afford a desirable type for an American city, where the cost of labor is so much higher than it is in English and European communities. It is believed, however, that the distinctly English type of incinerator of modern construction thoroughly accomplishes complete destruction of the refuse.

Decarie Incinerator

Examples of the Decarie type of incinerator were inspected at Sacra-

mento and Santa Cruz, California; Minneapolis, Minnesota, and New Orleans, Louisiana. While at Sacramento, the cost of incineration was comparatively low, being only 52¢ per ton, at all other Decarie plants the cost was high, ranging from \$1.33 per ton at Santa Cruz to \$1.63 at Minneapolis, and the extremely high cost of \$3.19 per ton at New Orleans. It is the conviction of the writer that the fundamental idea of the Decarie system is in error, namely, the sides of the Decarie furnaces instead of being constructed of fire brick, consist of a steel jacket containing water. This results in an excessive radiation of heat from the burning refuse into the steel jacket and water contained therein, instead of a conservation of the same heat for the main purpose of an incinerator, namely, the destruction of the refuse. An incinerator furnace should be so designed as to concentrate within the furnace, as far as possible, every particle of heat developed rather than to present a large area of cooling surface to dissipate the heat.

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Nye Odorless Crematory

Six plants constructed by the Nye Odorless Crematory Company were recently inspected by the writer. The distinctive features of the Nye plant are its simplicity of design and operation, and its cheapness of first cost.

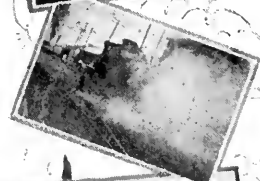
In this type of furnace the atmospheric air is taken in through a vent passed through an air jacket above the arch bricks of the furnace, where its temperature is raised by the heat of the furnace before coming up through the grates. After passing through the grates the gases of combustion and flames are deflected around the interior of the furnace arch into contact with the refuse, and then passed out through a flue to the combustion chamber which is located directly under the furnace, after which the gases are passed through a

series of flues beneath the furnace and thence to the chimney. By this arrangement the use of a forced draft is eliminated and the heat of the combustion chamber, which is directly beneath and adjacent to the furnace, is utilized to help destroy the refuse. In most types of incinerators the combustion chamber is located at some distance from the furnace proper.

The Nye plants at Sedalia, Missouri; Tulsa, Oklahoma; Waxahachie and Beaumont, Texas, which were visited by the writer are examples of the modern type of this make. All of these plants were operating to the entire satisfaction of the city authorities, and it was evident from an inspection that extreme heats were maintained without difficulty, and that the incineration was thorough and complete.

The two Nye plants at Baton

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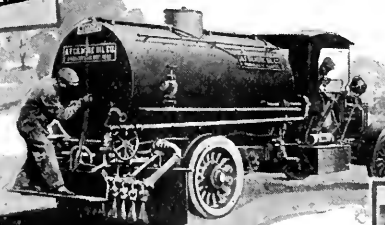
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Rouge, Louisiana, were constructed in 1914, and are therefore not of the most modern type. However, in spite of the fact that they are somewhat obsolete and have not been properly maintained and operated, they are still destroying the refuse, a great deal of which is of a very difficult type, namely, slaughter house offal, dead horses, etc.

The writer is convinced that the Nye incinerator would prove a successful type for the city of Alameda.

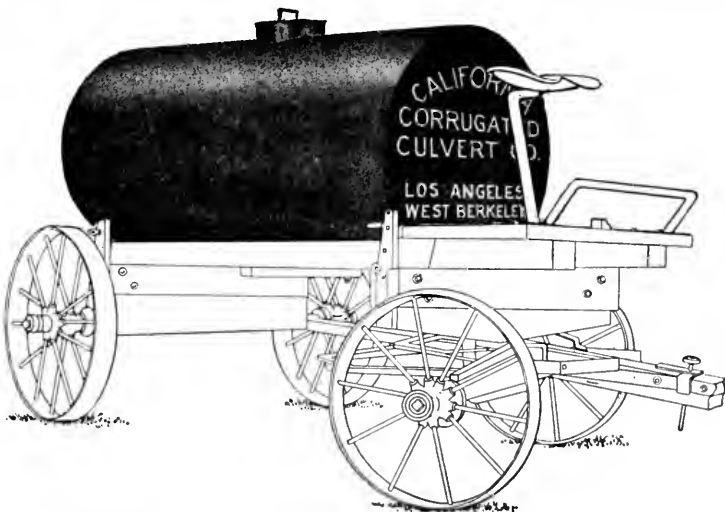
The Collins & Pellet Incinerator

There are only two plants in existence built by Collins & Pellet, a San Francisco firm, both of which have been inspected by the writer. One of these was built in 1914 for the United States Army at the Presidio by Mr. Collins, who was then in the employ of Lea and Nye. The other was built in 1919 at Vallejo, California, by Collins & Pellet. These

plants are a development of the old original Nye plant and to a considerable extent are experimental plants, built to demonstrate certain ideas of the makers. These plants require constant use of an oil burner and are expensive to operate. The cost of incineration at the Presidio plant is \$2.56 per ton. The Vallejo plant is being operated by a contractor so that accurate cost data was not available. As near as could be ascertained the costs for incineration were about 85c per ton. This plant presented an unfavorable impression, due to the methods of operation, incomplete burning of refuse, and general unsanitary appearance of the plant and surroundings.

The writer would not recommend the expenditure of funds of the City of Alameda for the construction of a plant of this type, which is largely experimental.

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The Fred P. Smith Destructor

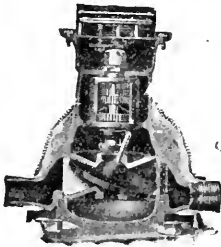
The writer inspected four incinerators built by Fred P. Smith Company, namely, the plants at Pasadena and San Jose, California; Portland, Oregon, and Vancouver, B. C. All four of these plants are in successful operation; the plant at Portland destroying the refuse at a cost per ton of $47\frac{1}{2}\text{¢}$, the lowest cost attained by any plant of the twenty-three inspected. The plants at Pasadena and Vancouver were operating at costs of \$1.53 per ton and \$1.96 per ton, respectively. Both of these plants were operating far below their capacity, which accounts for the excessive costs per ton. At all of the Smith incinerating plants visited the superintendents were well pleased with the plants, the operation being simple and effective. In every instance the plant and surroundings were well designed and well maintained. The Portland plant, especially,

which was one of the largest and most successful visited by the writer, was receiving and disposing of a quantity of refuse in excess of its rated capacity, and doing so without any delay or congestion whatever.

It is stated that certain changes have been made in the interior of the furnaces at the Portland plant, since the original construction by the Fred P. Smith Company. Nevertheless, the plant is fundamentally a Fred P. Smith plant.

At Vancouver, B. C. they have a Heenan-Froude plant, an English type, and a Fred P. Smith plant. In spite of the fact that this is what might be termed an English town, they have abandoned the English Heenan-Froude plant, and are operating the Smith plant. The latter according to the superintendent is giving good satisfaction.

The writer is convinced that the Fred P. Smith plant would prove satisfactory for the City of Alameda.



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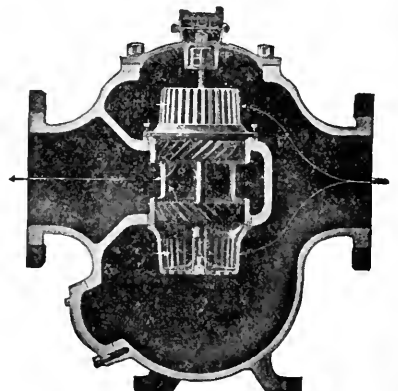
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Pacific Municipalities

AND COUNTIES

A Monthly Review of Municipal Problems and Civic Improvements

OFFICIAL ORGAN OF THE LEAGUE OF CALIFORNIA MUNICIPALITIES



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LEADING ARTICLES IN THIS ISSUE

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Official Announcement

*To all City Councilmen and other officials
of the Cities and Towns of Northern California:*

Notice is hereby given that a conference of city officials of Northern California will be held at the Hotel Lincoln, in the City of Stockton, San Joaquin Co., Calif., on Saturday, June 3rd, 1922, for the purpose of considering what action should be taken regarding the following measures recently proposed under the initiative:

1.—Proposition to submit all publicly owned utilities to regulation by the Railroad Commission.

2.—Proposition to submit all publicly owned utilities to taxation.

3.—Proposition to take the granting of franchises out of the hands of the municipalities and place the power in the hands of the Railroad Commission.

It is needless to say that these measures are of vital importance to every municipality in the State. Each city is therefor requested to send at least one representative. The meeting will be opened at luncheon, commencing promptly at twelve o'clock noon.

Respectfully,

LOUIS BARTLETT,
President.

WM. J. LOCKE,
Executive Secretary.

*Southern Cities and sections of the League are requested to send
representatives if possible.*

Pacific Municipalities

AND COUNTIES

OFFICIAL ORGAN OF THE LEAGUE OF CALIFORNIA MUNICIPALITIES

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San Francisco, California

May, 1922

NOTICE—Every city belonging to the League of California Municipalities is entitled to a copy
of this magazine for each of its officials without extra charge. If not received kindly notify the
Secretary.

A. Carlisle & Co., Printers, San Francisco

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Organized 1897

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Every Incorporated city and town in California should be on the above membership roll

Pacific Municipalities

AND COUNTIES

OFFICIAL ORGAN OF THE LEAGUE OF CALIFORNIA MUNICIPALITIES

Entered as second-class matter March 22, 1913, at the Post Office at San Francisco, California, under the Act of March 3, 1879.

**RESOLUTION ADOPTED AT SANTA ANA, CALIFORNIA, MAY 4, 1922,
AT A CALLED CONVENTION OF REPRESENTATIVES OF THE
SOUTHERN SECTION OF THE LEAGUE OF CALIFORNIA
MUNICIPALITIES, OF THE FARM BUREAUS
AND FARM CENTERS OF SOUTHERN
CALIFORNIA AND OF THE
IMPERIAL IRRIGATION
DISTRICTS.**

Whereas, it is apparent to all persons acquainted with the facts that the great Imperial Valley in California is annually in imminent danger of being overflowed and flooded by the Colorado River; that the menace of this river is increasing with the years; that its bed is filling and rising about one foot a year; that its bottom is now several feet higher than it was when it broke into the valley several years ago and formed the Salton Sea; that its levees must be built higher each year; that the only available dirt for levy construction is very poor material for the purpose; that should the Colorado River break through the levees again, its destruction would be immeasurable; and that the havoc of its deluge would be great and appalling because it would not only be immediately destructive, but its evil effects would be permanent, for the reason that its waters would not run off or subside, as in floods most everywhere else, but would gather in the basin of the valley, which is below sea level, as in the formation of the Salton Sea, and remain until the river again turns to another outlet and until the sunshine of centuries again lifts these waters by evaporation; and,

Whereas, relief can be had from this portending catastrophe, and the fifty thousand people and the millions of dollars' worth of land and other property in this valley can be made safe by the construction of flood control dams in the river basin; and hundreds of thousands of acres of additional lands can be irrigated, and immense amounts of hydro-electric power can be developed; and,

Whereas, House of Representatives Bill No. 1149, "To Provide for the Protection and Development of the lower Colorado River Basin," introduced in the House of Representatives by Congressman Phil Swing, and in the Senate by Senator Hiram W. Johnson, is a measure looking to the early accomplishment of these purposes in the best and most practical manner;

Now, Therefore, Be It Resolved by the joint convention of the representatives of the Southern Section of the League of California Municipalities, of the Farm Bureaus and Farm Centers of Southern California, and of the Imperial Irrigation Districts, duly assembled in the city of Santa Ana, California, on Thursday, the fourth day of May, 1922, pursuant to call and notice regularly made and given.

That House of Representatives Bill No. 11449, "To Provide for the Protection and Development of the Lower Colorado River Basin," be approved and endorsed;

That we urge upon the committee on Irrigation of Arid Lands, and upon the Congress the imperative necessity of an early report and passage of this bill that the relief therein proposed may soon be given;

That we request the Senators and Congressmen from California to give their special attention to this measure and press its adoption.

Respectfully submitted,

GEORGE L. HOODENPYL,

J. S. NICKERSON,

GRANT M. LORRAINE,
Committee.

To make more effective such resolution, a committee of mayors present was appointed, consisting of

Mayor W. F. Coulter, Fullerton, Chairman;
Mayor John L. Bacon, San Diego, President, Southern Section,
League of California Municipalities;
Mayor S. C. Evans, Riverside;
Mayor William Stark, Anaheim;
Mayor E. W. Cuff, Brawley;
Mayor John G. Mitchell, Santa Ana;

which committee was instructed to appoint representatives to attend the House Committee hearing in Washington, which hearing will occur, it is believed, shortly after the fifteenth of May. To make this possible, the committee was further instructed to request of each municipality and district a contribution of fifty dollars to defray expenses of these representatives. This committee has already communicated with your city with reference thereto, as well as with the Boards of Supervisors of the several counties. Responses already have been prompt and generous.

It is assumed that, in addition to the representatives of the cities generally, some of the larger municipalities will also send special representatives to assist in this great undertaking.

THE NEW AMERICAN FALLS, IDAHO

By RUSSELL VAN NEST BLACK
TOWN PLANNER

(An Article Prepared for the League of California Municipalities.)

The reclamation of the arid West involves a great many interesting problems not the least of which is the moving and rebuilding of American Falls, Idaho.

American Falls, county seat of Power County, lies in the very fertile but arid Snake River Valley at the point where the Oregon Short Line Railroad crosses the river. The original town, now a community of 1,554 people, was built without plan or foresight partially upon land ill adapted to civic growth.

In developing plans for the utilization of the hydraulic resources of the upper Snake River watershed, it has been found that a maximum development will involve the construction of a dam at American Falls, where topographic conditions render feasible the most efficient control of the stream. This dam will create a reservoir 125 square miles in area, impounding water sufficient to irrigate 300,000 acres of very fertile land. The work is planned to be financed largely by contributions from local interests and under the direction of the United States Reclamation Service. Preliminary to undertaking actual construction and in addition to the work outlined in this article, the Reclamation Service has completed diamond drill borings at the proposed dam site and has made extensive surveys and engineering studies. It is estimated that the cost of the reservoir may exceed \$13,000,000.

More than four-fifths of the old American Falls lies within the area to be submerged. In all there must be moved or wrecked 344 residences, 46 business houses, three hotels, one school, five churches, one hospital, six grain elevators, one flour mill, and numerous

shacks and sheds. The railroad which now passes through the center of the town, also falls for a short distance within the reservoir right of way and must be moved a maximum distance of 1,600 feet back from its present location.

Rather than risk the results of private initiative the Government has undertaken the relocation of the community. Six hundred acres of virgin land, adjacent to a small section of the old town which need not be greatly disturbed were purchased as a site and the writer was engaged to prepare complete plans for the new town.

The new site is on the higher ground approximately a half mile east of the old business center. Comparatively level and unbroken, except by one or two shallow draws, and sloping gradually from the reservoir back to the low, irregular hills, it is almost ideally adapted to civic development. The only difficult adaptation is an adequate connection with the small, ill arranged, surviving section of the old town.

Through the preliminary study, a chief problem was the size of community for which to plan. In the building of cities there is but one thing apt to do greater injury than the neglect to plan and provide for the future and that is to promote a city where no power on earth could properly maintain more than a hamlet.

A careful investigation has been made of the apparent resources of the district and their probable influence upon the growth and prosperity of the new town. Thousands of acres of undeveloped irrigable land within the zone of influence; vast extent of wheat lands that

may be dry-farmed to greater advantage; the continued and possibly increased raising of cattle and sheep; large electric power and the possibility of the development of such industries as flour and wool-scouring mills in this community, central to so much wheat and wool production; the increasing importance of the town as county seat; the reservoir as an engineering accomplishment of broad interest, and possibly as something of a pleasure resort, attracting visitors from far and near; and the thousands of workers to be brought in during construction of the dam, some of whom will inevitably remain—all point to a bright future for the community. Leaving out of consideration the not improbable discovery of some undeveloped natural resource, it is not difficult to see the ultimate town grown to a thriving community of not less than 10,000 people.

Assuming this possible population as a basis, a plan has been made of an expansive nature, comfortable for the few as well as for the many. If for any unforeseen reason the city does not grow, it will be comfortably accommodated near the center of the new site. If it needs to expand, land and streets are provided to permit of development along the most logical lines at a minimum of inconvenience.

In general, the character of the street system has been largely determined by: the location of the railroad, fixed by grade; the reservoir on the west; and the low, irregular hills on the east. Other factors are the surviving section of the old town and the highways entering from the surrounding country. The three chief highways are: from Pocatello, the nearest considerable community, thirty miles to the north; from Rockland and the dry farming districts to the south; and from the territory across the river to the west.

The position of the hills and the reser-

voir have forced a plan somewhat elongated northeast and southwest. This happens also to be the general direction of the heaviest traffic flow, up and down the valley, and is the most logical trend of growth. Each of the main highways is brought into town with consideration of the character of its greatest use and is distributed as directly as possible to the various centers; residential, business, industrials and social. Effort has been made to lead these highways into rather than through the community, necessitating that every traveler obtain at least a glimpse into the heart of the town.

A large factor in laying the first foundations has been the location of the railroad. To obtain suitable grade it is necessary that the new railroad location skirt closely the line of the reservoir. Since this eliminates the possibility of its ever cutting through the community, and since for the greater distance through town it passes unobstrusively through a deep cut, this location is not undesirable.

Approaching from the west, the railroad enters upon a heavy grade which places the westernmost practical location for the passenger depot approximately as indicated on the plan.

It is desirable that the business center of the community be located in some convenient relation to the depot. Coincidentally, the area directly east of the proposed depot location, being comparatively level and centrally located, is well adapted to development as the business and social center. This general location therefore has been placed to this use.

A broad avenue, designed as the chief retail business street, is carried from the railroad and reservoir back some 1,400 feet to a large public square, terminating in the courthouse beyond. This public square is planned to become the recreation center of the community and sites have been reserved on its four sides for the various public and semi-public build-

ings including: the court house, federal building, recreation hall, churches, hotel and theatre.

In the northwest section of the site, adjacent to the railroad and the freight depot and to the leeward of the rest of the community, an adequate tract has been reserved for storage warehouses, grain elevators, loading-pens, heavy business, and whatever mills or industries may desire accommodation. Blocks in this district have been turned in a contrary direction to make them more accessible to spur tracks and to afford somewhat of separation from the second class residential district located on the level, fertile land directly east of and accessible to the industrial district and readily adaptable to the economic development of homes and gardens.

South and southeast of the public square and separated from the second class area by a large combined school and playground, is the first class residential district. This largely occupies the first level of low hills, more adapted to the better class of development.

The various districts are defined and protected by complete restrictions which are to be placed in the land contracts until such time as a zoning ordinance, based upon these restrictions can be put into effect. First and second class residential districts are to be differentiated by construction only. The retail business district including the broad avenue mentioned above and the flanking streets on either side, has also been divided into first and second classes, the differentiation being based on construction and use. The section of the old town to be retained, not being the property of the United States must remain unrestricted until a zoning ordinance is obtained, but is of a character unlikely to be of appreciable influence upon the remaining development.

In the second class residential district, the average lot size has been placed at

60 x 135 feet and is, but slightly larger in the better class district, variation in size throughout being based upon adaptability to use. Business lots average 25 x 125 feet and the industrial area is divided into 50 foot frontages for convenience of sale.

Street widths vary from 50 feet for minor residential streets to 80, 90 and 100 feet for the main traffic leads and 120 feet for the short business street. All streets in cross-section have been arranged upon an elastic plan, with trees set to permit pavement widening as need demands. To obtain desired openness and space between houses, set-back lines varying from 15 to 30 feet have been established throughout the residential districts. All streets have been located with a feeling for topography to the end that there are no excessive grades or side hill cuts.

Since the district is accustomed to their orderly use and is not of a type in which they are likely to become dangerous, public alleys have been used throughout. They are to serve as public easements carrying the electric light and telephone poles and other public utilities including water and sewer.

Water will be obtained from wells driven in the higher ground east of the city. This source failing, large flowing springs on the west bank of the river will provide a bounteous supply.

Because of the low rainfall, about 15 inches, the surface run-off can be cared for without any great extent of storm water sewer. Sanitary sewage will be treated in septic tanks.

The plan includes adequate reservations for parks and playgrounds. The public square is to become a restful place of cool shade and greensward, furnished with a bandstand, a bit of splashing water and a wading pool for the youngsters. It is to be in every sense the recreation center of the community.

CALIFORNIA'S WATER AND POWER ACT

The State's Advantage in Interest Rates

By RUDOLPH SPRECKELS

The California Water and Power Act places the credit of the State back of the development by the people and for the people of their water and hydro-electric resources.

The Act provides that the water and power thus developed shall be sold to the people at cost, with provision for retirement out of earnings in fifty years of the bonds issued for the work.

There is nothing new in the undertaking. The Province of Ontario established it 16 years ago. Ontario's rates for hydro-electric power are from 66 $\frac{2}{3}$ to 75 per cent less than the people of Ontario formerly paid to private corporations, and yet the bonds issued by Ontario are being retired within 30 years.

The California Water and Power Act applies the Ontario plan to this State.

California has reached a stage in her industrial development that demands development of her water and power resources, to be made available to consumers at low rates. Los Angeles was quick to see this.

Los Angeles city, as municipal undertakings, brought abundance of water to the city, and developed electric power for its people at low rates. The growth of Los Angeles industries has been unprecedented since publicly-owned water and power was made available.

On page 9 of the *Literary Digest* for May 13, 1922, there is a shaded map showing actual business conditions throughout the United States on April 15. White areas indicate good crops, industrial activity, and "high-pressure" buying markets. In the black areas these conditions are lacking. The shaded areas are half-way.

With the exception of two small places in Missouri the only white area is the territory surrounding the city of Los Angeles.

Two methods for State-wide development of the state's water and power resources are before the people.

(1) Private monopoly proposes bonds and stock issues for such development. The lowest amount set on these private corporation issues is \$1,000,000,000. Estimates as high as \$1,500,000,000 to be issued during the next ten years have been suggested. The interest paid on these corporation securities will be over 2 per cent higher than the State can borrow money for.

When it is remembered that if a sum equal to a saving of 2 per cent in interest rates be set aside each year at 5 per cent compound interest, it will retire the entire bond issue in less than 26 years, the importance of saving this difference in the interest rate must be apparent to everyone. Furthermore, private monopoly will continue to collect from the people rates for electricity high enough to pay their high interest rates, and, since it is the announced policy of power companies not to retire such debts, the people, as rate payers, will continue to pay high rates to the private companies to meet their interest charges on their enormous stock and bond issues outstanding and to be issued.

(2) The second plan for this necessary development of our hydro-electric power is proposed in the California Water and Power Act which is to be voted upon in November.

This measure authorizes the issuance from time to time as they are required for development work, of state bonds

not to exceed \$500,000,000, and to be issued to pay for profitable water and power projects only. Thus the maximum bond issue proposed under the Water and Power Act is not more than one-half the bonded indebtedness proposed by the privately-owned companies.

The interest rates on these state bonds should be at least 2 per cent lower than the rates which private companies are compelled to pay for money. As has been seen, a difference of 2 per cent in the interest rates would retire the whole issue in less than 26 years.

But the Water and Power Act provides for the retirement of these bonds in fifty years or about double the period of their possible retirement out of the difference in the interest rates which private monopoly and the state would be called upon to pay. The interest on the state bonds would be paid out of rates for water and power, just as the interest on the money borrowed by the power companies would be paid out of rates for water and power; but the principal invested by the state would be paid out of the water and power rates, insuring lower rates immediately, with the certainty that they will go lower as the investment principal is retired, while the principal of the power companies' debt would constantly increase and result in higher rates. State development would have this advantage over the power companies because the amount set aside each year equal to the interest which the people will be required to pay the power companies to meet their bond interest charges would not only meet the interest on the state bonds, but retire the bonds themselves in less than 26 years.

The additional fact must not be lost sight of that the rates for water and power which the private companies collect from the public are fixed high enough to meet not only the bond interest charges, but also "reasonable

returns" on their investment, which the Railroad Commission has fixed at 8 per cent. The big dividends on stock paid out on these so-called "reasonable returns" would, under the Ontario plan of sale to the public at cost, be saved to the people and reflected in lower rates for water and power.

The fact must not be lost sight of, that whether development by the state under the Ontario plan, or by the power companies under the monopoly plan, be decided upon, the interest on the securities which will be required to put through either plan, will be paid out of the rates by the people of California for water and power, but under state development the interest charges are far less.

State development of water and power has, of course, many other advantages over monopoly development other than the difference in interest rates. These will be made the subjects of future articles. But this advantage in interest rates had unquestionably had much to do with the tremendous success of the Ontario project.

The people of that province are now paying from 66 $\frac{2}{3}$ to 75 per cent less for their electricity than they paid under private monopoly. The people of Toronto, for example, under private monopoly, paid eight cents per kilowatt hour plus a meter charge for domestic lighting and 12 cents plus a meter charge for commercial lighting. They now pay 2.2 cents for both without a meter charge. The average monthly bill for domestic lighting in Toronto for 1920 was \$1.11; for commercial lighting \$3.87. Under the rates paid under private monopoly with the same amount of electricity used, the average monthly bill for domestic lighting at Toronto would be approximately \$4.44 instead of \$1.11, and \$23.22 instead of \$3.87 for commercial lighting.

But in spite of these satisfactory re-

ductions in the people's electric light bills, the thirteenth annual report of the Ontario Hydro Electric Power Commission shows that whereas the net debt on its power properties equalled 88 per cent of its total assets in 1913, the debt was reduced to 65.3 per cent in 1920. Ontario is furnishing electricity to its

people at cost, with provision for retirement of its power plant indebtedness out of rates, and that is what is proposed for California in the Water and Power Act.

Such a showing as has been made by the province of Ontario would not be possible under private monopoly development of such a project.

COMPREHENSIVE CITY PLAN FOR RICHMOND

Wide Scheme of Civic Improvements Presented

By GUY WINIFRED HAYLER, City Planner

The city planning commission of Richmond at a special meeting held last October, had placed before it the plans comprising the comprehensive city plan together with the report of the civic survey. The work which has taken some months to complete has been carried out by Dr. Carol Aronovici and Guy Wilfred Hayler, associated city planners, of San Francisco.

It has been done at the instance of the city council on the recommendation of the City Planning Commission, and is of a wider scope than any other city planning work hitherto attempted in California.

The plans, seven in number, outlined in colors, express graphically the following phases of the city:

1. **Existing Conditions**, showing in detail, how land and property is used, industrial locations, open areas, public property, railroad property, schools, etc., together with charts of wind direction, ratio of land and water in city area, relative proportions of land occupancy in the city structure, etc.

2. **Distribution of Population**, showing the growth of city since incorporation and density of population expressed by dots. Charts of population increase and city territory increase are also given.

3. **Waterfront and Harbor**, showing the proposals of the U. S. Government for the new inner harbor, industrial development of the water front, wharfs, landings, ferries, etc., together with the hydrography and topography of the shore line. Charts of land, water and marsh areas, public and private tidelands are added.

4. **Public Utilities**, showing the complete sewer system and outfalls, water mains and wells of the various companies, gas lines and source of supply, electrical power cable lines, sub-stations, etc., charts show the extent of the public utility service in relation to the homes and population.

5. **Improved Streets**, showing all paved streets and type of paving used. Charts showing the ratio of paved to unpaved streets, proportions of the various types of paving, etc.

6. **Major Thoroughfares and Transportation Facilities**, showing all railroad tracks, grade crossings, industrial spurs, depots, freight houses, switching yards, grade eliminations, ferry lines, street car and interurban lines, auto stages, truck lines, together with the major city thoroughfares outlined in relation to the regional districts. Charts show length of transportation lines, major thoroughfares, traffic census figures

in graphic form embracing the flow of vehicular traffic at important points, etc.

7. **Land Values**, showing the present values of developed and undeveloped land on a front foot and acreage basis, also the value of tidelands in private ownership. Charts show in detail the rise and fall of values in the business district.

In addition to these maps and exhaustive survey report which have formed the basis of the city planning studies by Messrs. Aronovici and Hayler, a preliminary city plan has been prepared which outlines the recommendations for improvements.

These cover: 1. A new major thoroughfare system. 2. New boulevard system. 3. Proposed new streets. 4. Street widenings. 5. Streets abandoned. 6. New parks, playgrounds and open spaces. 7. New school extensions. 8. Railroad freight right of way. 9. New street car routes. 10. Sites for new public buildings. 11. Civic center development. 12. New zoning scheme for the city.

Amongst these proposals the following stand out as conspicuous: The new major thoroughfares which give arterial access and unite business districts, industrial areas, waterfront, railroads and main regional roads, considerable attention has been given to this subject because of the future prospects of Richmond becoming a still greater industrial center and the need of facilitating the conduct of business on the most efficient lines. The new boulevard system which creates a tree lined girdle around and through the city, making the thoroughfares attractive to the regional motorist, encouraging them to visit it, as well as providing enjoyable drives for the citizen and promenades for the people. At present the city is almost destitute of trees, although there is every reason to believe they would thrive here.

Richmond has now no public parks or open spaces, and these have been provided for in the new plan. A large city park, small parks with field houses, an aquatic park on the waterfront, and small plazas throughout the city are outlined. In addition the present inadequate school playgrounds are enlarged, and the outline of a new high school with an athletic stadium is shown. The plan gives detailed suggestions as to how these recreational areas may be developed.

In line with other progressive cities, Richmond is much interested in zoning, and a scheme for zones for residential, business, light industry and heavy industry property are submitted with outlying areas where marsh and hilly topography at present render unusable, remaining unclassified until land reclamation and development has brought them into the influence of the city.

The City Planning Commission has now accepted the outlined city plan, together with the recommendations of Messrs. Aronovici and Hayler, and the city council has the matter in hand with a view to placing the acceptance of the plan on the ballot for a popular vote. Many of the proposals, however, are likely to receive prior acceptance by ordinance.

The city plan scheme has been submitted to several representative gatherings of citizens and been very favorably received. A campaign of newspaper publicity has also given added prominence to the work. Six analytical articles on the plan have been published on the following distinctive features: 1. Main Thoroughfares for Traffic. 2. Parks and Boulevards for Recreation. 3. School Playgrounds for Children. 4. Better Transportation for Trade. 5. Zoning for Property Protection. 6. Methods for Carrying the Plan into effect. Each of these articles has been illustrated with a specially drawn

graphic diagram embodying the main features of the city plan stripped of technical formalities. Public interest has therefore been steadily aroused in the work of the City Planning Commission and their efforts to achieve early results.

The city planners have been highly complimented on their work which, it is hoped, may stand as a model on which other California cities may proceed in the way of improving their communities.

INTERNATIONAL TREATY INVOLVED IN SOLUTION OF INTERSTATE HIGHWAY TO ARIZONA VIA EL CENTRO AND YUMA

In the southeast corner of Imperial County, and hence of the State of California, lie a chain of sand hills fifty miles long and seven across, which to date have formed an effective barrier to the construction of an adequate interstate highway connecting El Centro and Yuma, Arizona. The hills are constantly on the move, and during one of the high winds which are prevalent at certain seasons of the year, would bury, past economical reclamation, any permanent type of surfaced highway. At the present time the sand hills are bridged by a plank road built in sections which can be moved or abandoned to accommodate the drift of the sand.

Recently Division Engineer W. W. Patch, of the California Highway Commission located at Los Angeles, with the cooperation of the Mexican officials of lower California, made a reconnaissance survey south of the international boundary line to determine what possibilities there might be for routing the San Bernardino-Yuma lateral south of the international boundary. It was found that the sand hills end a short distance south of the line, and that their drift is all north, so that a line located there would be safe at all times. By crossing south of the boundary line for a total distance of about fourteen miles and returning into United States territory at Andrade, where the head works of the Imperial Valley irrigating system are located, a most excellent highway could be established.

The problem of constructing a serviceable interstate highway connection at this point, as contemplated in the last two State Highway Bond Acts, becomes, therefore, political rather than scientific. Before construction can take place an international treaty will have to be negotiated neutralizing a highway zone free to the nationals of both countries and special financing arranged for, as present funds at the disposal of the California Highway Commission could not be expended outside the territorial limits of California. It is believed on good authority that Mexican officials, both of Lower California and the Republic, are friendly to the plan, because Mexico contemplates a highway from near Yuma, Arizona, via Mexicali to the bay of Lower California. State legal authorities, at the request of the Commission, have advised that funds for the construction of a fourteen-mile section of highway through Mexican territory could be had by special act of the State Legislature and that motor vehicle funds could be used for the future maintenance of such a highway, providing treaty arrangements with Mexico neutralizing the highway zone and vesting the control of the highway for construction and maintenance in the California Highway Commission.

Undoubtedly steps will be taken to work out a solution of the political and financial questions involved, as the interstate connection with Arizona via El Centro and Yuma is vitally important to Southern California.

MUNICIPAL UTILITIES IN PALO ALTO

By FRANK KASSON, City Clerk

The delegates to the annual convention of the League of California Municipalities, which will meet at Palo Alto on September 19th to 23rd, 1922, may anticipate an interesting demonstration of the benefits of the municipal ownership of public utilities. Palo Alto is operating more varied municipal enterprises than perhaps any other city in California. These enterprises include:

- Municipal Water Plant.
- Municipal Light and Power Plant.
- Municipal Gas Distributing System.
- Municipal Garbage Destructor Plant.
- Municipal Hospital.
- Municipal Paving Plant.
- Municipal Community Center.
- Municipal Library.
- Municipal Swimming Pool.
- Municipal Automobile Bus Station.

Palo Alto was incorporated as a city of the sixth class in 1894. Two years later the need of a sufficient water supply was met by voting bonds to establish a water plant, the first step in municipal ownership. In 1898 an unexpended balance of \$13,000 from a sewer bond issue was diverted to install a small lighting plant, which has grown into the present large power plant. As a pertinent reminiscence, it may be stated that at that time the rates along the San Francisco peninsula charged by the private companies were from 17c to 20c per kw. hr. Palo Alto made a rate of 10c and soon the rates for the whole peninsula were reduced to that figure.

The remaining enterprises have been established at various later periods, even as late as 1921 when the hospital was purchased and the paving plant installed.

The Water System

The water supply of Palo Alto is derived from artesian wells, the pumps

being operated by electricity furnished by power plant. There are five deep wells, 220 feet to 500 feet in depth, located at different points. The distributing system has 24 miles of mains. The revenue last year was \$46,492.68, and the net profit \$9,125.49. The earnings show an increase over the previous year of 12.8 per cent. The rate is 16c per 1,000 gallons plus a service charge of 50c a month.

The Power Plant

The power plant, housed in a fine concrete building, contains four Diesel engine generating units, with a combined capacity of 1,350 kw. The larger of these engines was installed last year and the last unit of the former steam plant was discarded. The demands for current have increased so rapidly that already the full limit of production has been reached and provision for further energy will have to be made at once. The revenue from the plant last year was \$110,260.23, with a net profit of \$19,812.42. The estimated revenue for this year as shown in the budget is \$119,500.00, but the actual income will exceed this by several thousand dollars.

The rates charged for electric energy are: Lighting, 6c per kw. hr. plus a service charge of 50c a month; power, 2c to 3c per kw. hr.; heating and cooking, 2½c per kw. hr.

Gas Distributing System

The gas plant owned by the city consists of a high pressure distributing system which supplies gas to Palo Alto and Stanford University. Gas is purchased wholesale, being piped from San Francisco. The price fixed by the State Railroad Commission for the wholesale purchase of gas is not particularly favorable to the city, yet the plant pays well and the revenues are increasing rapidly. The total revenue last year

was \$101,235.48, and the net profit, \$13,002.22. The estimated earnings for this year, \$108,315.00, will be considerably exceeded. The rate to consumers is \$1.20 per 1,000 cu. ft.

The garbage destructor plant was especially designed for Palo Alto and was erected in 1912. Its operation has been entirely successful and satisfactory. The collection of garbage is done under contract, but the city operates the incinerator and collects fixed rates from householders for the service rendered. The revenue is practically the same as the expense.

The Municipal Hospital

In 1921 a finely equipped hospital, owned by a corporation, was about to be closed. The people of Palo Alto, not wishing to have the institution discontinued, voted bonds for its purchase to the amount of \$55,000, about one-half the value of the property. At the same time an agreement was entered into whereby Stanford University operates the hospital in conjunction with its two hospitals in San Francisco and its medical department at the university. Should there be a profit in its operation that profit will accrue to the city, and conversely the city is obligated to make good any deficit. The enterprise will probably be self-maintaining.

City Paving Plant

In the spring of 1921 the Council instituted proceedings under the state laws for paving a number of streets. The bids received from the paving concerns were so high as to be almost confiscatory in some instances. The Council rejected these bids, and made an appropriation to the Board of Public Works for the purchase of a paving plant and equipment, and authorized the Board to enter upon a paving program. Under the plan adopted by the Board, an assessment roll is made and a notice is sent to each property owner asking that the Board be authorized to pave

in front of his property, and that the full cost of the work be paid in advance. It was rather late in the season when the work was started, but about three miles of pavement were laid. Only one property owner (himself a paving contractor) refused to authorize the work. The Council then began proceedings under the 1911 act to pave this one section of pavement (3,000 square feet), and the owner has elected to have his company do the work, after carefully investigating the plan and proceedings and finding no legal flaw. The cost of the paving done by the city has saved more than 25 per cent to the owners as compared with the rejected bids. A better pavement was laid than was specified, and the cost was a little under the City Engineer's estimates.

During this year several more miles of pavements will be laid under the same plan, and the program will be continued until all the streets of the city are improved. The property owner is charged by the city just the actual cost of the work done. The scheme has met with general approval from both the resident and non-resident holders of lots. The disadvantage of the advance cash payment is more than offset by the saving effected in the cost. The fact that the Council has the power to order the paving done under the state laws at an ultimate greater cost has its full persuasive effect.

All the foregoing enterprises are self-supporting and all practically profit-producing. Others of the municipal enterprises are maintained for the benefit and recreation of the citizens. One of the notable successes in this line is

The Community Center

A tract of about eighteen acres, controlled by the city and located along the State Highway and the main business street, is devoted to this use. The Community Center House was originally the hostess house of the Y. W. C. A.

at Camp Fremont. It was moved to the city holding and fitted up for its present use. The building has a large audience room, billiard hall, nursery, class rooms and living rooms for the director. The building is open at all times, and practically every night is in use for a lecture, musicale, dance or other entertainment. Free instruction is furnished to classes in any desired subject, and thirty classes were carried on during last winter. Provision is made for baseball, tennis, basketball and children's playgrounds. An athletic director is employed by the city. A free employment bureau is also conducted. The Center is managed by a Community Center Commission, with a definite budget appropriation. The commission has appointed fifteen committees from among the citizens to have charge of the varied activities of the Center and they are all enthusiastic over their work. In short, the

place is a real community home.

The municipal swimming pool is the joy of the small boys and girls as well as their older brothers and sisters. It is located near the power plant, and the water used in cooling the Diesel engines is discharged into the pool, keeping the temperature at just the right degree for bathing. A swimming teacher is in attendance.

All of these advantages are maintained at a comparatively low tax rate, and at the same time the rates charged for the public utility services are among the lowest in the state. These results are due to the intelligent direction of the city council, the careful management of the various boards and the faithful service of the city employes. Palo Alto will appreciate the opportunity to show the representatives of other municipalities what she has done and is doing when they shall be her guests at the September convention.

WHAT THE CITIES ARE DOING

Newport Beach. This city has advertised for bids for the construction of lateral sewers. Property owners have petitioned the Board of Trustees to order the paving of Central Avenue from B Street to L Street. The Board is considering the purchase of new fire apparatus and possibly a fire boat. Contract has been awarded for the construction of a board walk along the ocean front for \$4.35 a foot. Contract for dirting the camp ground was also let for \$810.67.

Napa. City Engineer Harrold has submitted to the Board of Trustees, plans and specifications for the improvement of Yajome Street, from Jackson to Lincoln Avenue, and on Jackson Street from Yajome to Lawrence. A resolution of intention to do this work was adopted.

Modesto. The City Council has authorized the establishment of a municipal wood yard to be conducted by the local unit of the Salvation Army. The move should stop begging and will furnish the opportunity to earn a meal and lodging to those who are willing to work and really need it.

Sixty permanent parking signs have been ordered from the California State Automobile Association to be erected on the principal business blocks of the city, two to a block. The signs are being sold to the city by the association at cost.

Hanford. The Board of Trustees are investigating sites for the establishment of a new auto camping ground, the present one being inadequate.

Oroville. The trustees are considering the matter of erecting a city hall.

Fairfield. H. C. Reid & Company, of San Francisco, have been awarded the contract for the installation of 33 electroliers along Texas Street, by the Board of Trustees. The sum bid was \$5,600.

Redondo Beach. A movement is on foot for the purchase of a \$125,000 piece of property containing about seven acres of ground for civic center purposes.

Hollister. The Board of Trustees has accepted the bid of the First National Bank of this city for the \$32,000 Memorial Park bonds. The premium offered as \$2,688.

Antioch. An ordinance has been introduced providing for the issuance of bonds in the sum of \$96,000 to construct a water works.

Merced. An Austin street broom, horse-drawn, to cost \$980 has been ordered purchased by the Board of Trustees. The purchase of 500 feet of fire hose and 20 first aid fire extinguishers was also ordered.

Glendora. This city is to have a two unit municipal water system. The Board of Trustees have voted to take over the properties of the

private company and improvements to increase the well capacity 100% are already projected.

Oakdale. Plans and specifications have been approved for a new fire house. They provide for a two-story brick building, the lower floor for housing the truck and other apparatus, and the upper floor to be given over to sleeping quarters and a club room for the volunteers. The dimensions of the building will be forty by fifty feet, and the cost not to exceed \$9,000.

Corning. The Board of Trustees has authorized the purchase of a tractor and road grader for use on the streets to replace the two mules and old wagon now being used for

this purpose. The street commissioner has been authorized to sell the mules and all work possible including street sprinkling, will in the future be done by tractor.

Bakersfield. A municipal market system has been established, markets to be located in both the east and west sides of the city. Plans and specifications have been ordered for considerable street paving of the asphaltic Warrenite type.

Tulare. The Board of Freeholders recently elected have submitted to the Board of Trustees a draft of proposed charter for the City of Tulare. The charter provides for the city manager form of government.

CAMPING SEASON OPENS

Automobile campers are beginning to throng the highways, and camping paraphernalia is common equipment on many machines encountered on country roads. The beginning rush of the touring season is on. It therefore becomes the duty of all health officers within whose jurisdiction automobile camps are located to make certain that the State Board of Health regulations regarding campground sanitation are fully complied with and that the necessary preparations for receiving the summer crowds have been made. In order that readers of this publication may be fully informed regarding the requirements for campground sanitation, the California State Board of Health regulations are reprinted here.

Regulations Regarding Campground Sanitation

The following rules shall apply to any city, county, city and county, village, community, institution, person, firm or corporation operating, maintaining or offering for public use within the State of California any tract of land on which persons may camp or picnic, either free of charge or by payment of a fee.

Rule I. A water supply of sanitary quality acceptable to the California State Board of Health shall be provided in ample quantity to meet all requirements of the maximum number of persons using such a tract at any time. Said water supply shall be easily obtainable from its source or from faucets on a pipe distributing system within a distance of 300 feet of any camp or picnic spot within such tract.

Rule II. Any water of inferior sanitary quality on or in the vicinity of such tract of land, to which campers or picnickers on said tract may have access, shall be either eliminated or purified, or shall be kept posted with placards definitely warning persons against its use.

Rule III. Fly-tight privies, water-flushed toilets, or other toilet facilities acceptable to the State Board of Health shall be provided and shall be maintained in a clean and sanitary condition. One separate installation each for men and for women shall be provided for each one hundred or fraction thereof, of the maximum number of persons occupying such tract at any time. No camp or picnic spot within such tract shall be at a greater distance than 400 feet from both a men's and a women's toilet. The locations of all toilets shall be plainly indicated by signs.

Rule IV. Supervision and equipment sufficient to prevent littering of the ground with rubbish, garbage or other refuse shall be provided and maintained. Fly-tight depositories for such materials shall be provided and conspicuously located. Each and every camp or picnic spot on said tract shall be within a distance of not over 200 feet of such a depository. These depositories shall not be permitted to become foul-smelling or unsightly or breeding places for flies.

Rule V. The method of final sewage or refuse disposal utilized in connection with the operation of any camp or picnic ground shall be subject to approval of the California State Board of Health.

Rule VI. At least one caretaker shall be employed by the management to visit said tract every day that campers or picnickers occupy said tract. Such caretaker shall do whatever may be necessary to keep said tract and its equipment in a clean and sanitary condition.

Rule VII. The management of every public camp or picnic ground shall assume responsibility for maintaining in good repair all sanitary appliances on said ground, and shall promptly bring such action as is necessary to prosecute or eject from such ground any person that wilfully or maliciously damages such appliances, or any person that in any other way fails to comply with the spirit of these regulations.

Rule VIII. Each and every owner and lessor of any public camp or picnic ground shall be held responsible to the California State Board of Health for full and literal compliance with these regulations.

Rule IX. This resolution or a digest of the same shall be printed and kept posted in conspicuous places on every public camp or picnic ground by the management of such ground.

Failure on the part of the owner or management of any camping ground to comply with the foregoing rules shall be deemed sufficient cause for declaring the premises a public nuisance under the provisions of Section 370 of the Penal Code of California; also sufficient cause for the State Board of Health to post placards on said ground or otherwise advise the public of said failure and warn campers and picnickers to go elsewhere.

SAN FRANCISCO'S STREET RAILWAY PROBLEM

While the Public Utilities Committee of the Board of Supervisors is debating whether or not to submit to the people a proposition to purchase the lines of the Market Street Railway Company and pay for them out of earnings and thus once and for all settle San Francisco's transportation problem, the people of the City of Detroit, Michigan, have authorized the city administration to purchase the urban lines of the Detroit United Railroads and consolidate them with the present municipally owned street railway system.

Thus Detroit, though not the first city in the United States to enter upon a policy of municipal ownership and operation of transportation, San Francisco being first in that field, is first to put an end altogether to private ownership of transportation facilities and consolidate all of its street railway lines into one municipally owned and operated system.

This consolidation will give Detroit the largest municipally owned street railway system in the world.

What Detroit has done San Francisco can do if the Board of Supervisors can come to some agreement as to the valuation at which it will be willing to submit the proposition of purchasing the privately owned railroads to the people. Beyond question, it would be to the interest of the people of San Francisco to make this purchase, for the problem of street railway transportation cannot be settled so long as there are two systems operating here.

San Francisco has problems similar to those that confronted Detroit. It also has the power to purchase the properties of the privately owned utility and pay for them out of earnings. The only obstacle, apparently, to submitting to the people the proposition whether or not they shall authorize the project

is the matter of valuation, and upon that the Public Utilities Committee does not appear to agree.

There is great need in San Francisco for additional street railway service. The growth of many sections is seriously retarded because they have no street car service or such inadequate service as to almost amount to none at all.

The end of the franchise period of the principal lines of the privately owned company is approaching, and the company refuses to make any extensions or betterments except those that are absolutely necessary to the maintenance of the property in running order. In fact, the company has, ever since the Charter fixed the franchise period at twenty-five instead of fifty years, refused to build new lines or make extensions on the ground that the franchise period was too short to warrant any investment in new construction. With the exception of the Gough street line and the Parkside line no new construction has been undertaken by private enterprise since 1900. There has been, however, an almost entire reconstruction of the properties of the Market Street Railways since 1906.

A satisfactory valuation being arrived at, the proposition to be decided by the people of San Francisco is whether or not the railroad company's property shall be purchased or whether the city shall wait until the expiration of the franchise period, or about ten years, before taking over the basic lines.

Extensions of street railway service are sadly needed in San Francisco; the privately owned railway company will not make them and the city cannot make them without the issuance of bonds and the duplication of trackage and facilities that it will eventually take over when the franchises expire.

To quote an advertising slogan, if "eventually, why not now?" The building of lines into the territory now served by the Market Street Railway and the paralleling of existing lines for several miles, simply for the purpose of extending service into sections not now served, but which could be served by the extension of existing lines if the entire system were unified under municipal ownership and operation, would be a criminal waste of money and the idea should not be tolerated.

The people must consult their own convenience as well as their own pocket-book in this matter. If they take over the properties of the Market Street Railways now, providing the proposition is submitted to them by the Board of Supervisors, they will get a street railway system in fairly good condition, a system that the Railroad Commission says is worth \$40,000,000. If they wait until the expiration of the franchise period, they will get a worn out system, practically all of which will have to be renewed, and they will have the pleasure of paying tribute to the private owners of the system until the last of the franchises expires.

Which is the better policy: To wait until the franchises expire and then take over a pile of junk, paying dearly for it and in the meantime going without service that is sadly needed, or to reach an agreement with the owners of the property and take it over now, paying for it out of the earnings and getting the extensions upon which the growth of the city depends.

This is a practical question and should not be difficult to solve. The people of Detroit did not find it difficult, with the result that to-day the entire urban transportation system of that city is under municipal ownership and operation.

The people of San Francisco should be given the opportunity to pass upon this matter for themselves in order that they may be able to settle their transportation difficulties and establish a unified street railway system with universal transfers for a five-cent fare.

—Daily Recorder, San Francisco.

Average Cost of Different Pavements

A recent compilation by the U. S. Bureau of Records, on the cost of various types of road pavement, covers 68 million square yards of paving constructed with Federal aid in all parts of the United States from 1916 to 1921. The following square yard costs of paving are average figures only: Sand-clay, 18c; gravel, 46c; plain and surface-treated macadam, 95c; bituminous macadam, \$2.10; bituminous concrete, \$2.50; plain cement concrete, \$2.57; reinforced cement concrete, \$2.74; and brick, \$4.10.

Hydro-Electric Power Projects Discussed by Cabinet

The Boston to Washington superpower survey, the Colorado River development and other projects were discussed by President Harding and his cabinet on April 8th, as a means of minimizing the effect of coal strikes in the future and also in relation to the general economic fabric of the country. According to reports the discussion was most thorough, although no definite conclusions were reached. Secretary Hoover submitted the proposition for discussion, and it is said that the cabinet intends to continue its study of the project. The superpower survey of the Atlantic seaboard was fostered by the Engineering Council and a very complete report was prepared for Congress by a commission of engineers about a year ago.

CHAS. T. PHILLIPS

CONSULTING ENGINEER

SAN FRANCISCO

STREET LIGHTING EXPERT

ROAD BUILDING EXPERIMENTS

The California Highway Commission, jointly with the U. S. Bureau of Public Roads, also with the co-operation of the Columbia Steel Company, in the use of its property, is to continue to completion the Pittsburg highway tests started last spring by the company to investigate the strength of different types of concrete highways, with particular reference to the effect of reinforcing steel. At the conclusion of the tests already instituted, the Commission and the Federal Bureau expect to start an entirely new series of tests on the same ground, which has been offered for the purpose by the steel company.

The fact that expenditures for highways in the United States last year amounted to approximately \$600,000,000, an amount which places road building among the big industries of the country, justifies a considerable expenditure for experiment to determine just how they should be built to meet the needs of the ever increasing traffic.

When riding over a finished road very few people think of the problems, many and varied, which its building gives rise to. For instance, the cost of oil, gas and repairs for motor vehicles can be varied by simply changing the location, the curves or the grades. The type of surface also must be considered in the economic operation of vehicles. Problems also arise in connection with the materials and methods of construction and maintenance of the surface. There is also the proper selection and design of the surface which includes consideration of the subgrade.

Problems of interest to a certain locality are usually investigated by the various state highway and educational institutions throughout the country, the Bureau of Public Roads cooperating by way of furnishing part of the personnel and special instruments and equipment. At present there are in progress eight investigations of this character ranging in size from small laboratory tests requiring but one investigator and little equipment to experimental roads like the Pittsburg highway, requiring a corps of research engineers and expensive equipment and apparatus. These activities show that the country has gone into the road building business in earnest and should give assurance that the great mileage of roads to be built will be the best and most economical that science can develop.

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Notice

Officials who have borrowed ordinances from the League office please return them promptly when through with them, and kindly send in a copy of the new ordinance which same have been used to assist in framing. Have your printer put us on the mailing list for ordinances published so that our supply of ordinances may be kept up to date. It will help us to help you.

Notice

Copies of the Aeroil Burner Company's Bulletin No. 20, descriptive of their oil burning appliances, asphalt kettles, etc., have been received and will be sent to officials requesting same. Please enclose self-addressed and stamped envelope.

(Continued from page 152)

A shallow draw, a stream bed dry during most of the year extends through the southerly portion of the new site from the railroad to the hills. This draw is ill adapted to residential use. It is to be developed as a naturalistic park with flanking parklike streets and walks, and planted to a few of the more hardy local native evergreens and shrubs. In this mecca of the automobile tourist it has become incumbent upon all communities to provide tourists' camping parks. An area between the main highway from the south and the railroad is well adapted to this use and has been reserved for that purpose.

This is the present extent of the proposed park land except that it has been recommended that, as the community grows, attention be given to the preservation and development of the reservoir shore and river bank.

Two new school sites have been reserved, each with area adequate for playgrounds to serve the whole community.

Trees have been recommended for all streets including those of the business district. The poplar is the favorite tree in most parts of the Snake River Valley. However, experimental planting has proved that the better trees such as oak, elm and linden, if given water, will thrive even more vigorously here than in the East. These better trees are to be used.

Beyond the plan is the problem of its execution. To insure the comfort of the present small town in the full-grown plan and to provide that the community shall be conveniently and economically condensed throughout its various periods of growth, a considerable number of blocks of the extremities of the platted area will be temporarily withheld from sale and the first public improvements will be installed only in the district of logical earliest development and will be extended little in advance of demand.



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AND ESTIMATED OTHER THAN TAXES.

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Form 4—RECAPITULATION OF EXPENDITURES.

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California State Highway Mileage and Funds

By the end of the present fiscal year California will have completed around 3,007 miles of its State Highway program, or about half the mileage incorporated in the State system by the various bond and legislative acts pertaining to highways. In addition to this 3,007 miles are 946 miles of special appropriation roads which are not included in the list of completed highways. Some of these 946 miles are equal to the State highway standard for finished roads, but the majority will need radical reconstruction. The total mileage in the State system for both building and maintenance is over 6,300 miles or close to 10 per cent of all dedicated public roads in the State, exclusive of incorporated cities.

Of the 3,007 miles built by the California Highway Commission, 1,765 miles are concrete base roads, with or without asphaltic surfacing, 305 miles are paved roads of other types and 937 miles are graded roads.

Since January 1 of this year, the Commission has contracted for 103 miles of new construction; 46 miles of gravel surfacing and 30 miles of asphalt surfacing. Its program for the year calls for \$15,000,000 in new highway construction.

During 1921 average costs for the different types of roads were roughly as follows:

Graded roads, \$12,000 per mile.
Bituminized macadam, \$21,000 per mile.
Concrete base, \$30,000 per mile.

Bituminous pavement, \$24,000 per mile.

The total expenditures of the department to April 1, 1922, exclusive of motor vehicle funds, which are used almost exclusively for maintenance, amounts to \$52,646,084, and the estimated unobligated balance available from all sources, exclusive of motor vehicle funds, is \$33,700,000. At the present rate of construction these funds will be largely obligated during 1922 and 1923.

Fighting Valena Slide

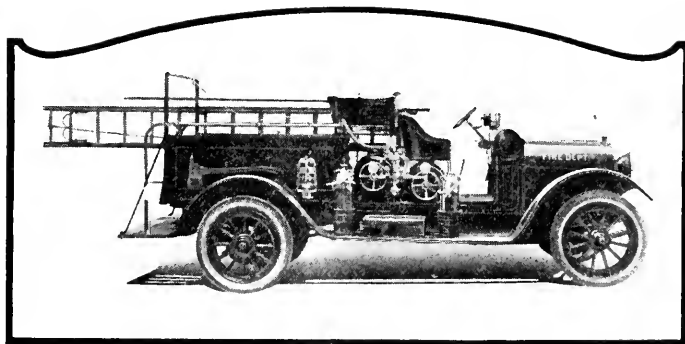
The California Highway Commission and the Southern Pacific Company are engaged in a battle to conquer the Valena Slide on the Martinez-Oakland road.

Tunnels are being driven at the base of the hill to drain the water that has resulted in the development of slide conditions. Water to the extent of 120 gallons per minute is being collected in the different tunnels and drifts, which water formerly flowed into the slide.

Indications are thought favorable to overcoming the drainage conditions with its resultant slide, threatening both highway and railroad.

The Southern Pacific Company is in active charge of the work with the California Highway Commission, assisting in its financing.

At the present time travel is being accommodated across the slide by a temporary bridge.



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Congressional Inquiry Committee Advocates Continuation of Road Building

"Nothing since the advent of the railroads," said Congressman Sydney Anderson, chairman of the Joint Committee of Agricultural Inquiry, recently in giving advance notice of the report to be made to the Congress, "has had so marked an economic and sociological effect upon the production life of the country as the motor vehicle. The committee will recommend that Congress continue to promote an adequate program of highway construction and maintenance, directed to the more effective correlation of highway transportation with rail and water transportation.

"We believe that the program of highway construction and maintenance by states and counties should be continued under the direction of qualified experts, with particular reference to the construction and maintenance of farm-to-market roads; that adequate funds should be appropriated for research and regulation of traffic based upon the facts so ascertained.

"The several states should cooperate in effecting a uniform basis for taxing motor trucks and other motor vehicles,

which shall fairly represent the proportion of expense of highway construction and maintenance chargeable to such vehicles."

"Previous to its appearance, the economic zone of transportation was sharply defined by the haulage range of the horse and the cost of such transportation. It will be shown in the report that in 1916 the estimated cost of hauling in wagons from farms to shipping point averaged about 30 cents per ton mile for wheat, 33 cents for corn and 48 cents for cotton. Hauling in motor truck or by tractors the averages are 15 cents for wheat and corn and 18 cents for cotton. In the same year wagon hauling averaged nine miles from farm to shipping point and motor truck hauls 11.3 miles; the motor truck averaged 3.4 round trips per day over its longer route, while wagons made 1.2 round trips per day.

"It thus appears," said the Congressman, "That the major result accomplished by this new form of transportation has been to extend and broaden the markets of the farmer. Single reactions are to be found in the fact that the use of the motor vehicle has brought the farmer closer to the city, and also has increased the desirability and comfort of farm life."

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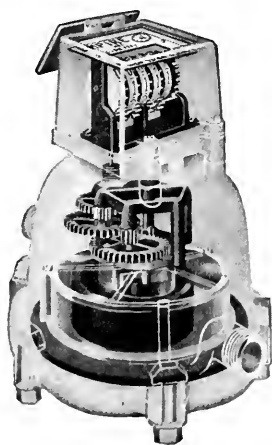
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Alhambra.....	\$30.00	Glendale.....	\$40.00
Albany.....	20.00	Gilroy.....	20.00
Amador.....	10.00	Gridley.....	20.00
Berkeley.....	50.00	Gustine.....	10.00
Bakersfield.....	40.00	Hercules.....	10.00
Benicia.....	20.00	Hermosa Beach.....	20.00
Biggs.....	10.00	Hayward.....	30.00
Beverly Hills.....	10.00	Healdsburg.....	20.00
Belvedere.....	10.00	Hillsborough.....	10.00
Brea.....	20.00	Hollister.....	20.00
Chico.....	30.00	Huntington Beach.....	20.00
Coalinga.....	30.00	Lemoore.....	20.00
Corning.....	20.00	Lindsay.....	20.00
Colton.....	30.00	Los Angeles.....	60.00
Coronado.....	30.00	Livermore.....	20.00
Corona.....	30.00	Los Gatos.....	20.00
Corte Madera.....	10.00	Loyalton.....	10.00
Calistoga.....	10.00	Lodi.....	30.00
Compton.....	20.00	Lompoc.....	20.00
East San Diego.....	30.00	Lynwood.....	10.00
El Segundo.....	20.00	Madera.....	30.00
Eureka.....	40.00	Maricopa.....	20.00
		Marysville.....	30.00

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Manhattan Beach	10.00	San Jose	50.00
Manteca	20.00	Salinas	30.00
Modesto	30.00	San Bernardino	40.00
Monterey	30.00	San Rafael	30.00
Mountain View	20.00	San Mateo	30.00
Napa	30.00	Santa Ana	40.00
Oakland	60.00	Santa Cruz	40.00
Oakdale	20.00	Selma	30.00
Ontario	30.00	Susanville	10.00
Orland	20.00	Willows	20.00
Palo Alto	30.00	Winters	10.00
Pasadena	50.00	Whittier	30.00
Placerville	20.00		
Pacific Grove	20.00	Total	\$2171.00
Pinole	10.00		
Pleasanton	20.00		
Porterville	30.00		
Redlands	40.00		
Redding	30.00		
Redondo Beach	30.00		
Redwood City	30.00		
Reedley	20.00		
Roseville	30.00		

To Build Redding Subway

An agreement has been reached between the California Highway Commission and the Southern Pacific Company for the construction of an undergrade crossing on the line of the highway and the railroad south of Redding.

The subway is being built in accordance with the policy of the Highway Commission to eliminate grade crossings as rapidly as funds for such work are available.

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CONVENTION OF CIVIL SERVICE COMMISSIONS

The National Association of Civil Service Commissions will hold its annual convention in this city during the week of June 6-10. That San Francisco was selected as the place of meeting was due to the efforts of Commissioner George A. Tracy, who represented the city at the last annual meeting.

The following is the program for the coming convention:

Tuesday, June 6

10 a. m. to 12 m.—Registration of Delegates.

2 p. m.—Call to order—President, David J. Reese.

Roll call.

Organization.

Appointment of committees.

5:30 p. m.—Reception.

6:30 p. m.—Complimentary dinner to Delegates.

Addresses of welcome—Hon. Wm. D. Stephens, Governor of California; Hon. James Rolph, Mayor of San Francisco; Hon. J. J. O'Toole, President San Francisco Civil Service Commission.

Address—John L. McNab, Esq., of San Francisco.

Adjournment 10 p. m.

Wednesday, June 7

Morning Session

Topic: "Standardized Examination Tests"

9:30 a. m.—(1) Scientific procedure necessary in developing tests which are standard—Dr. Lewis M. Terman, Stanford University.

(2) The short examination, based upon intelligence tests, as used by the San Francisco Civil Service Commission—E. A. Walcott, Commissioner.

(3) The oral examination for tradesmen, based upon the standards developed by the personnel division of the army—Dr. L. L. Thurstone, Carnegie Institute of Technology.

(4) Report of committee on development of standard examinations—Wm. Gorham Rice, Commissioner New York State Civil Service Commission.

12 m.—Luncheon.

Afternoon Session

Topic: "Classification"

2 p. m.—(1) The efficacy of a classification in civil service administration, and "turnover" in public service—Albert Smith Faught, Philadelphia Civil Service Reform League.

(2) A method of developing standard salaries and wages—J. B. Probst, Chief Examiner, Civil Service Commission of the City of St. Paul.

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(3) Prerequisite qualification requirements for examination—Thos. C. Murray, Chief Examiner, New York City Civil Service Commission.

(4) The appraisal of the duties of position for the purpose of determining their proper classification—Allen M. Ruggles, Service Examiner, Wisconsin State Civil Service Commission.

Thursday, June 8

Morning Session

Topic: "Efficiency Records"

9:30 a. m.—(1) A model plan of service records for recording the efficiency of individuals in public service—John Steven, Chief Examiner, New York State Civil Service Commission.

(2) A discussion of the uses to which efficiency records may be put when developed—David V. Jennings, Chief Examiner, Milwaukee County Civil Service Commission.

12 m.—Luncheon.

Afternoon Session

Topic: "Administration"

A comparison of the operation of a civil service commission with the operation of an employment department in a large industrial organization—Chas. P. Messick, Chief Examiner, New Jersey State Civil Service Commission.

Following the afternoon session the

delegates will be given a complimentary automobile ride around San Francisco.

Friday, June 9

Morning Session

Topic: "Recruiting the Public Service"

9:30 a. m.—Making the public service attractive, and interesting competent persons to apply for employment in the service—Hon. William Drennan, Commissioner, New York City Civil Service Commission.

12 m.—Luncheon.

Afternoon Session

Closing

Reports of committees.

Selection of 1923 convention city.

Election.

Appointment of committees.

Adjournment.

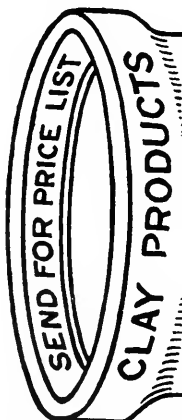
Polytechnic School Road

Construction of an oil macadam road between San Luis Obispo and the California Polytechnic School, a distance of 4,000 feet, has been authorized by the California Highway Commission. This road was authorized by a special Act of the last Legislature.

Modoc Highway Matters

An allotment has been made out of funds budgeted to the Redding-Alturas lateral to complete the section between Adin Summit and Canby this summer. This road is located in Modoc County.

A line change has been formally approved that will make the highway pass the Kelly Hot Spring, a natural feature in the road of considerable interest and importance.



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Motor Vehicles Increasing Faster Than Roads

Figures in a report made to Congress by the Joint Committee on Agricultural Inquiry, show that while the motor vehicle traffic has increased more than 1,900 per cent in the period 1910 to 1921, the actual expenditures for highway construction and maintenance, taking into consideration the increase in cost of materials and labor during the war and the readjustment period, was only slightly over 200 per cent. According to Congressman Sydney Anderson, chairman of the committee, "the combination of inbound farm products and outbound supplies by motor truck in some sections has concentrated upon the motor truck service the majority of the traffic within 30, 40 and 50 miles."

"Since the growth in the use of the motor vehicle has been very markedly in advance of highway construction and maintenance, and since it has brought with it a new and heavier form of highway traffic, it becomes evident that large funds will have to be expended if the

2,500,000 miles of rural highways in the United States are brought up to the standard of efficiency comparable to the extended use of the roadbeds.

"Another effect of improved highways is to enable the farmer to hold his products on the farm for a longer time. Where highways are unimproved the farmer must move his produce when the roads are good, which is generally at the season when the prices are lowest. Improved highways thus make not only for a broader market but for a more stabilized one."

"The committee believes there should be regulation of the use of the highways, especially with respect to overloading, and maximum loading to be based upon the facts so developed. It will also urge that since poor highways not only increase the cost of transportation of commodities from farm to market, but also affect the comfort of the farmer and prevent him and his family from a full enjoyment of communication with his neighbor, all highways wherever possible should be improved and adequately maintained."

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Detroit's Way

Detroit, a city of more than a million inhabitants, has successfully brought together the reports of all its city departments and put them within the covers of one bound volume, the annual reports for the years 1919 and 1920, a total of 718 pages. It is an intensely interesting report, and contains the facts that the public will naturally want to know. Apparently, statistics have largely been avoided, and each report is written in an attractive way. For example, taken at random, the Department of Public Works has eight pages devoted to its activities, and new paving, repairing, cleaning streets and alleys, sewers, garbage collection, grade separation, Belle Isle bridge, house renumbering, steam road crossings, sidewalk repairs, public buildings, and docks, wharves and sidewalks are treated adequately.

For the year 1921 the city has issued

"Detroit's Government; a short story of the services rendered during the year 1921 to the people of the City of Detroit by their city government." It is a pamphlet of only 80 pages, and serves the purpose of a manual or a year-book. It is being distributed free to the citizens, and it is hoped in this way to disseminate real facts about the municipal government to most of the citizens. Detroit's officials are certainly awake to their opportunities and their responsibilities.

Santa Rosa—Shellville Highway

The first section of the State Highway from Santa Rosa via Sonoma to Shellville where it connects with the Black Point cutoff from Marin County to Napa, has been awarded by the California Highway Commission to Grant Smith & Company of San Francisco, for \$169,366. The State will furnish materials valued at \$140,000. There were eight bids received ranging up to \$230,350. The highway engineer's estimate was \$209,734.

The specifications call for a bituminized macadam pavement eighteen feet wide, six inches thick. The distance is about 12 miles.

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Paving Cuesta Grade

A contract for the improvement of so-called Cuesta grade between San Luis Obispo and Santa Margarita, a distance of about three and one-half miles, has been awarded by the California Highway Commission to W. A. Kettlewell & Sons of Oakland for the sum of \$78,205, state-furnished materials \$92,920.

This grade is an important link in the coast main line highway, and the present oil macadam surface is narrow and badly rutted. The new improvement calls for reinforced concrete twenty feet wide, six inches thick, with integral curves on both sides except where the grade widens out to permit parking off the right-of-way. Twelve contractors offered bids ranging up to \$136,878, and the State highway engineer's estimate was \$89,624.

Boulder Creek to Redwood Park

The California Highway Commission has authorized Division Engineer J. H. Skeggs, of San Francisco, in charge of Division IV, to expend up to \$25,000 motor vehicle funds for the improvement of the highway from Boulder Creek, Santa Cruz County to Redwood Park, a distance of eight miles, which highway was incorporated into the Stall system by Act of the Legislature. It is expected that this road will take a heavy summer traffic with the completion of a county paved highway from Santa Cruz to Boulder Creek, and as no work has been done for several seasons on the section between there and the park, this state work is felt to be absolutely essential to make the road safe for travel.

Use of Tar for Surfacing Roads

Tars and tar products are fast replacing mineral oil products for surfacing roads, says the United States Bureau of Mines in Technical Paper 266, recently issued. This fact may be variously ascribed to the increasing supply of suitable tars, the decreasing supply of suitable mineral oil products, increased appreciation and recognition of the suitability of tars, and the more general availability of tars in practically all parts of the country.

In Great Britain in 1907 there were only 100 miles of road covered with tar or tarry mixtures, whereas in 1908 there were 700 miles; in 1909, 3,000 miles, and in 1910, 7,000 miles of such road.

A number of specifications have been drawn up for the tar to be used for this purpose, a fact not at all surprising in view of tars being produced under so many different conditions, and the roadbed, surfacing materials, and traffic and climatic conditions differing widely from place to place. Road tars are used for various purposes, and may be applied in different ways to obtain a particular result—a further cause for the wide variance in specifications. They may be used as a binder in place of cement, as in bituminous macadam roads, for dust-settling purposes or for cementing material—grouting—in the construction of brick, stone, or wood-block pavements. Although the material used for these purposes is usually either a soft pitch or a refined tar, or a mixture of the two, it is quite generally termed "road tar."

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Carelessness, Not Skidding, Cause of Automobile Accidents

The impression prevails in some quarters that asphaltic pavements are slippery, especially when wet, and consequently are dangerous to drive on.

If this were true, accident records would show a large percentage of cases where skidding was the cause of the accident.

A three months' investigation recently made in Maryland disclosed the fact that 90 per cent of automobile accidents are due to speeding. Out of fourteen fatal accidents, two were caused by failure to heed the warning at railroad crossings; four by speeding; four by driving on the wrong side of the road, and four by reckless driving. It will be noted that none of the fatal accidents were caused by skidding.

Statistics taken from the city records in San Francisco on automobile and motorcycle accidents, show 3,609 accidents during 1921. Out of this number only 138, or 3.8 per cent were due to skidding. Of the 109 of these which were on asphaltic pavements, and considering those where causes were determined, 75 per cent were the result of carelessness. Considering that about 80 per cent of San Francisco's paved streets are of asphaltic types, and that due to the rains in winter and the fogs in summer they are in a wet condition a great deal of the time, the slight importance of accidents due to skidding is apparent.

A tabulation of an average one thousand reports on causes of automobile collisions, filed with the claim department of the Inter-Insurance Exchange, Los Angeles, shows 6 per cent of the accidents were due to skidding. Forty

per cent of these skidding accidents resulted from imprudent attempts to start to turn too quickly; 40 per cent from over-speeding, and only 20 per cent, or 1.2 per cent of all accidents were due to unavoidable skidding.

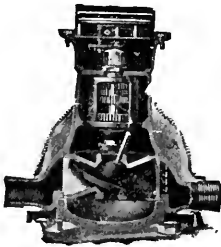
Asphaltic pavements have certainly not caused any appreciable number of automobile accidents. While the tractive resistance of asphaltic concrete is relatively low, it is not so low as to cause excessive slipperiness. As a matter of fact, asphaltic pavements are no more slippery than other so-called permanent pavement types.

The statistics quoted, prove that the cause of automobile accidents is carelessness and speeding, and that the way to cut down accidents is to drive carefully and at a reasonable speed.

Downieville Lateral Surfacing

Authorization for gravel surfacing on the Downieville lateral on the State Highway from Nevada City to Downieville in Nevada and Sierra Counties have been made covering these sections, totaling approximately 23 miles. These sections include Nevada City to North San Juan; southerly boundary to easterly boundary; westerly boundary to Goodyear's Bar.

Large sums have been spent to get good grades and alignment through this heavy mountainous country. This expenditure would be one of partial benefit, unless the gravel surface is placed on the road, otherwise would become hot and dusty in summer and difficult if not impassable for traffic in winter. Local supplies of gravel will be used.



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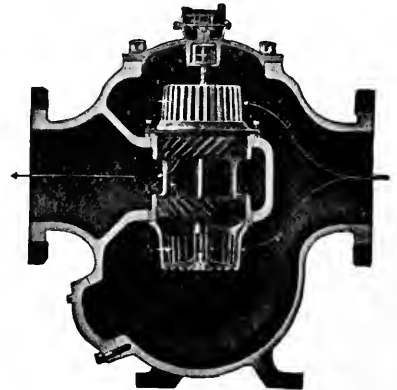
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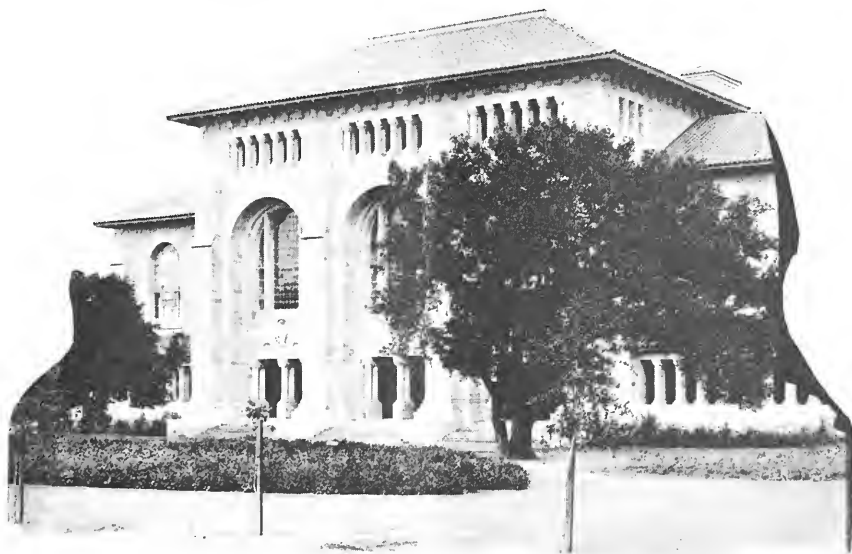
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A Monthly Review of Municipal Problems and Civic Improvements
OFFICIAL ORGAN OF THE LEAGUE OF CALIFORNIA MUNICIPALITIES



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Brea	Fortuna	Marysville	Reedley	Susanville
Burbank	Fowler	Mayfield	Rialto	Taft
Burlingame	Fresno	Merced	Richmond	Tehachapi
Calexico	Fullerton	Mill Valley	Rio Vista	Tracy
Calipatria	Gilroy	Modesto	Riverside	Tulare
Calistoga	Glendale	Monrovia	Roseville	Turlock
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Coalinga	Hemet	Napa	San Bruno	Visalia
Colfax	Hercules	National City	San Diego	Walnut Creek
Colton	Hermosa Beach	Needles	San Fernando	Watsonville
Colusa	Hillsborough	Nevada City	San Francisco	Watts
Concord	Hollister	Newman	San Gabriel	Wheatland
Corcoran	Holtville	Newport Beach	San Juan	Whittier
Corning	Honolulu	Oakdale	San Jose	Willits
Coronado	Huntington Beach	Oakland	San Leandro	Willows
Compton	Huntington Park	Oceanside	San Luis Obispo	Winters
Corona	Hyde Park	Ojai	San Marino	Woodland
Covina	Imperial	Ontario	San Mateo	Yuba City
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MEETING OF THE CITY OFFICIALS AT STOCKTON

A special meeting of the city officials of Northern California cities was held at the Hotel Lincoln in the City of Stockton on Saturday, June 3rd, 1922, pursuant to call issued by President Bartlett of the League, to consider three of the proposed initiative measures to the state constitution, to wit:

(1). The proposition to amend Sec. 150, Art. XIII, by providing that publicly owned utilities shall be subject to taxation the same as those privately owned.

(2). Adding Sec. 23-B to Art. XII of the constitution so as to provide that publicly owned utilities shall be subject to regulation by the Railroad Commission the same as privately owned utilities.

(3). An initiative measure now being circulated which would take the power of granting franchises for public utilities out of the hands of the local authorities and place such power in the hands of the Railroad Commission.

The city officials present sat down to luncheon at 12:30 o'clock and at the conclusion thereof Mayor Bartlett announced the purpose of getting together and suggested that the various propositions be taken up in the order above stated. Mr. Leon E. Gray, city attorney of Oakland, denounced the proposition to tax publicly owned utilities and made a strong and unanswerable argument against the adoption of the measure. He called attention to the significance of the fact that water works were exempted and pointed out that the purpose of exempting the 119 water plants of the state was undoubtedly done with the hope that no opposition would be made from that quarter. It was manifest that the idea was to secure an entering wedge by providing that the measure should first apply to other utilities of which only a few were publicly owned, and that if this were accomplished it would be much easier to add another amendment making it apply to water works. Mr. Gray was followed by Mr. Dailey, assistant city attorney of San Francisco, City Attorney Shinn of Sacramento, City Attorney Steele of Lodi, Mayor Eicke of Stockton, Mayor Ulrich of Modesto, Commissioner Bidwell of Sacramento, Supervisor Mulvihill of San Francisco and Assistant City Clerk Merritt of Oakland, all of whom vigorously opposed the proposed amendment. In

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(1). The proposition to amend Sec. 150, Art. XIII, by providing that publicly owned utilities shall be subject to taxation the same as those privately owned.

(2). Adding Sec. 23-B to Art. XII of the constitution so as to provide that publicly owned utilities shall be subject to regulation by the Railroad Commission the same as privately owned utilities.

(3). An initiative measure now being circulated which would take the power of granting franchises for public utilities out of the hands of the local authorities and place such power in the hands of the Railroad Commission.

The city officials present sat down to luncheon at 12:30 o'clock and at the conclusion thereof Mayor Bartlett announced the purpose of getting together and suggested that the various propositions be taken up in the order above stated. Mr. Leon E. Gray, city attorney of Oakland, denounced the proposition to tax publicly owned utilities and made a strong and unanswerable argument against the adoption of the measure. He called attention to the significance of the fact that water works were exempted and pointed out that the purpose of exempting the 119 water plants of the state was undoubtedly done with the hope that no opposition would be made from that quarter. It was manifest that the idea was to secure an entering wedge by providing that the measure should first apply to other utilities of which only a few were publicly owned, and that if this were accomplished it would be much easier to add another amendment making it apply to water works. Mr. Gray was followed by Mr. Dailey, assistant city attorney of San Francisco, City Attorney Shinn of Sacramento, City Attorney Steele of Lodi, Mayor Eicke of Stockton, Mayor Ulrich of Modesto, Commissioner Bidwell of Sacramento, Supervisor Mulvihill of San Francisco and Assistant City Clerk Merritt of Oakland, all of whom vigorously opposed the proposed amendment. In

conclusion it was moved and carried unanimously as the sense of the meeting that we oppose the amendment by all lawful means within our power.

The proposition to subject publicly owned utilities to regulation by the Railroad Commission was vigorously denounced by City Attorney Tillotson of Redding, who declared that in his judgment this measure was the most objectionable of the three. Other speakers against the measure included Judge Hall, City Attorney of Richmond, City Attorney Malcolm of Palo Alto, Supervisor Shannon of San Francisco, and City Attorney York of Napa. At the conclusion of the discussion a motion was made and unanimously carried that similar action be taken with respect to this proposition.

The proposition to turn over the granting of franchises to the Railroad Commission was bitterly denounced by Mr. D. W. Carmichael, former Mayor of Sacramento, who told how the measure had been surreptitiously put out by certain members of the California Real Estate Association, of which he is a director. Mr. Carmichael said, among other things, that he would sooner see the association destroyed than have such a measure adopted as a part of the constitution of the state. He was followed by City Attorney Locke of Alameda, who spoke of his interview with Mr. Guy Woolfe previous to the action taken by the association, wherein it was admitted that one of the principal objects sought to be obtained was to exempt street railway companies from the obligation to pave between their tracks and two feet on either side. At the conclusion of his remarks Mr. Locke called attention to the fact that all three measures had been introduced in the legislature and failed of approval. He stated further that the legislative committee of the League had conceded that it was unjust to make the street railway companies pay the entire expense of constructing a new pavement in view of the fact that after constructed the pavement was made use of by the competitor of the street railway, to-wit, the automobile, and a suggestion had been made that if a proposition were presented which involved a division of the expense of original construction on a basis of one-third by the municipality, another third by the street railway company, and the remaining one-third by the motor vehicles, it would meet with a better reception by the municipalities. Others who participated in the discussion of this question included City Attorney Shaughnessy of Stockton, City Attorney Bray of Martinez and Assistant City Clerk Merritt of Oakland. A similar resolution was unanimously carried respecting this measure, after which Supervisor Schmitz of San Francisco moved that a campaign committee be appointed by the chair to oppose all three measures, said committee to have full power to act. Mr. Gray suggested that the committee should write the opposition argument for the secretary of state. Supervisor Mulvihill followed on the importance of the meeting and, upon his suggestion, it was moved and carried that each city in the state be informed of the action taken by the meeting.

There being no further business, the meeting then adjourned.

The following city officials were present:

Geo. J. Ulrich, Mayor, Modesto; D. W. Carmichael, former Mayor, Sacramento; R. L. Shinn, city attorney, Sacramento; D. P. Eiche, Mayor, Stockton; F. A. Kenyon, commissioner, Stockton; F. B. Littleton, commissioner, Stockton; C. O. Smith, commissioner, Stockton; M. P. Shaughnessy, city attorney, Stockton; T. Garner, Tracy; John T. York, city attorney, Napa; H. A. Harrold, city engineer,

Napa; Chas. B. Wing, councilman, Palo Alto; N. E. Malcolm, city attorney, Palo Alto; J. F. Byxbee, city engineer, Palo Alto; A. V. Youens, assistant city engineer, Palo Alto; Warren Shannon, Supervisor, San Francisco; E. E. Schmitz, Supervisor, San Francisco; C. J. Deasy, Supervisor, San Francisco; Joseph Mulvihill, Supervisor, San Francisco; John J. Dailey, assistant city attorney, San Francisco; M. M. O'Shaughnessy, city engineer, San Francisco; Jesse C. Colman, Supervisor, San Francisco; Chas. J. Powers, Supervisor, San Francisco; Ray W. Taylor, San Francisco; N. A. Eckart, assistant city engineer, San Francisco; Joe J. Phillips, right of way agent, San Francisco; Joseph Bury, chief of messengers, San Francisco; T. V. Kreling, sergeant-at-arms, San Francisco Board of Supervisors; E. H. Morris, Park Commissioner, Modesto; C. H. S. Bidwell, councilman, Sacramento; L. A. Love, city clerk, Modesto; George Freitas, city engineer, Modesto; W. I. Carpenter, city electrician, Modesto; C. H. Morris, public utilities, Modesto; G. M. Steele, city attorney, Lodi; C. E. Wood, Mayor, Oakdale; Leon E. Gray, city attorney, Oakland; R. M. Dorton, city manager, Pittsburg; Albert Carter, commissioner, Oakland; L. Sanderson, city attorney, Berkeley; W. D. Tillotson, city attorney, Redding; H. C. Tuchsén, councilman, Redwood City; Frank C. Merritt, assistant city clerk, Oakland; A. F. Bray, city attorney, Martinez; Frank H. Harris, Board of Education, San Francisco; Jno. D. Hynes, Supervisor, San Francisco; V. Larsen, Daily News, San Francisco; L. D. Beckwith, The Forum, Stockton; Louis Bartlett, Mayor, Berkeley; D. J. Hall, city attorney, Richmond; Wm. J. Locke, city attorney, Alameda; W. A. Walden, Gridley; D. F. Jewell, Sebastopol; G. R. Tabor, Sebastopol; G. W. Libby, city attorney, Sebastopol.

Since the meeting at Stockton, the California Real Estate Association has redrafted its proposed amendment regarding franchises so that it would only apply to electric railways, motor trucks and buses.

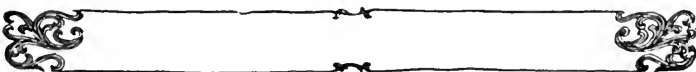
The amendment is still very objectionable, however, for the reason that it violates a fundamental principle of democracy, the right of local self-government, which our forefathers declared was the cornerstone of the republic.

Under the law as it now stands, if a street railway company wants to use the streets of a city they have to apply to the authorities of that city for permission.

Should the California Real Estate Association succeed with its amendment, the city authorities won't have anything to say about it.

Why not carry this idea a little farther and abolish local legislative bodies altogether. They are an awful nuisance at times, especially when a private corporation is seeking special privileges from the people to fatten the pocketbooks of its stockholders.

A strong centralized government such as prevailed in Germany before the war is so much easier to handle.



Department of Commerce Creates Division of Building and Housing.

For several years there has been developing a feeling that some agency of the Federal Government should interest itself in building and housing. The Congress of the United States made an appropriation for such activities for the year 1921-1922. The Act appropriating the funds says, among other things, "That as much of this sum as necessary shall be used to collect and disseminate such scientific, practical, and statistical information as may be procured, showing or tending to show approved methods in building, planning and construction, standardization, and adaptability of structural units, including building materials, and codes, economy in the manufacture and utilization of building materials and supplies, and such other matters as may tend to encourage, improve and cheapen construction and housing."

Accordingly, Secretary Hoover created the Division of Building and Housing, which co-operates with all groups interested in housing and construction, such as architects, builders, building material producers and dealers, building trades labor, contractors, builders' exchanges, realtors, building and loan associations, building inspectors, city officials and others.

The Division has helped local communities in successfully solving their housing problems. It collects and publishes monthly prices of twenty-four items of building materials as paid by contractors in different cities. It also makes reports on building activity, such as building permits and contracts awarded, and on general building and housing conditions in the country.

Mr. Hoover has appointed two main committees which cooperate with the Division of Building and Housing. The Advisory Committee on Building Codes, with a Subcommittee on Plumbing, is drafting minimum code requirements for building construction. The Advisory Committee on Zoning is making studies of state enabling acts and zoning ordinances. Its reports should be of distinct aid to communities interested in the promotion of the public welfare and the protection of property values.

A ZONING PRIMER

By The Advisory Committee on Zoning, Appointed by Secretary Hoover.

What Is Zoning?

Zoning is the application of common-sense and fairness to the public regulations governing the use of private real estate. It is a painstaking, honest effort to provide each district or neighborhood, as nearly as practicable, with **just such protection and just such liberty** as are sensible in **that particular district**. It avoids the error of trying to apply exactly the same building regulations to every part of a city or town regardless of whether it is a suburban residence section, or a factory district, or a business and financial center. It fosters civic spirit by creating confidence in the justice and stability of the protection afforded.

Zoning gives everyone who lives or does business in a community a chance for the reasonable enjoyment of his rights. At the same time it protects him from unreasonable injury by neighbors who would seek private gain at his expense.

Zoning regulations differ in different districts according to the determined uses of the land for residence, business, or manufacturing, and according to the advisable heights and ground areas.

But these differing regulations are **the same for all districts of the same type**. They treat all men alike.

Why Do We Need Zoning?

Someone has asked, "Does your city keep its gas range in the parlor and its piano in the kitchen?" That is what many an American city permits its household to do for it.

We know what to think of a household in which an undisciplined daughter makes fudge in the parlor, in which her sister leaves soiled clothes soaking in the bathtub, while father throws his muddy shoes on the stairs, and little Johnny makes beautiful mud-pies on the front steps.

Yet many American cities do the same sort of thing when they allow stores

to crowd in at random among private dwellings, and factories and public garages to come elbowing in among neat retail stores or well-kept apartment houses. Cities do no better when they allow office buildings so tall and bulky and so closely crowded that the lower floors not only become too dark and unsatisfactory for human use but for that very reason fail to earn a fair cash return to the individual investors.

"Live and let live" is a better motto for the modern city than the savage one of "dog eat dog."

It is this stupid, wasteful jumble which zoning will prevent and gradually correct. We must remember, however, that while zoning is a very important part of city planning, it should go hand in hand with planning streets and providing for parks and playgrounds, and other essential features of a well-equipped city. Alone it is no universal panacea for all municipal ills, but as part of a larger program it pays the city and the citizens a quicker return than any other form of civic improvement.

Zoning Protects Property and Health

Suppose you have just bought some land in a neighborhood of homes and built a cozy little house. There are two vacant lots south of you. If your town is zoned, no one can put up a large apartment house on those lots, overshadowing your home, stealing your sunshine and spoiling the investment of twenty years' saving. Nor is anyone at liberty to erect a noisy, malodorous public garage to keep you awake nights or to drive you to sell out for half what you put into your home.

If a town is zoned, property values become more stable, mortgage companies are more ready to lend money, and more houses can be built.

A zoning law, if enacted in time, prevents an apartment house from becoming a giant airless hive, housing human beings like crowded bees. It provides

that buildings may not be so high and so close that men and women must work in rooms never freshened by sunshine or lighted from the open sky.

Zoning Reduces the Cost of Living

By zoning millions of waste from the scrapping of buildings in "blighted districts" may be eliminated.

A "blighted district" is a district, originally developed for residence or industry, in the future of which people have lost confidence.

The causes of such "blight" are manifold. The most familiar case is that of a residential district into which there have begun to creep various uses threatening rapid destruction of its value for residences—such new uses as sporadic stores, or factories, or junk yards. It is not that a few such inappropriate uses really spoil the district, but that people having lost confidence, start a panic, like a "run on the bank." Hundreds of them hurry up to "unload" their properties at a sacrifice for any kind of use, no matter how objectionable to their neighbors—and the "blight" is on! Dwellings worth in the aggregate millions of dollars for the purposes for which they were built, and physically fit to serve those purposes for many years to come, with a moderate investment in alterations and improvements, are thus annually abandoned to purposes for which they are not fit, or are left to stand practically idle. Expensive public services of water, gas, electricity, sewers and transportation are maintained at great waste in order to get through the "blighted" district to the more distant and newly fashionable location.

The total economic loss is enormous, and this loss and the risk of it are paid by the people, in the price of house rents or otherwise, as inevitably as they pay the price of the enormous fire losses either directly or through insurance.

Proper zoning cuts these losses at their source, just as proper building

regulations and fire protection cut fire losses at their source.

Again, miles of streets and sewers and other utilities, such as are ordinarily built when land is newly subdivided for dwellings, need never be constructed if we know that these areas will be devoted mainly to large factories. Industry will be more efficient, as well as homes more wholesome, if kept generally separate. Separation need not mean great distances for workers to travel. Concentration of uses and a fair apportioning of districts should reduce the amount of all transportation and secure economies not only directly for the worker, but indirectly in the costs of production and marketing of goods.

If zoning can reduce the cost of living, why not have it?

Zoning Is Legal

When a zoning law is properly drawn there is no doubt that the courts will support it. Enough favorable decisions have been handed down to show that the courts regard regulation of the uses of land and structures thereon, in accordance with the **kind** of district in which they are situated, as a reasonable exercise of the police power "for the public health, safety and general welfare."

In fact, the courts have approved zoning whenever it was done sensibly and comprehensively. The first case arose in Boston, Massachusetts, where two different heights for future buildings were fixed throughout the city. This was supported by the highest court of Massachusetts and the United States Supreme Court. (Welch v. Swasey, 214 U. S. 91.)

The next important case arose in Los Angeles, California, where under a zoning plan dividing the city into industrial and residential districts a brickyard in a residential district was ousted, although it had been in existence for many years. This was upheld by the California courts and also by the United

States Supreme Court as a proper exercise of the police power. Modern zoning ordinances are not retroactive, however. (Hadacheck v. Sebastian, 239 U. S. 394.)

The best zoning case to show how far the courts will go in distinguishing between zoning districts is State of Ohio ex rel. Morris vs. Osborn, et al., 22 N. P. (N. S.) 549. The court held that one and two family houses were less subject to noise, litter, danger of contagion and fire risk than multi-family houses and that they could be placed in different districts under the police power. This case, however, was not appealed to a higher court and we cannot say whether other states will follow it.

In New York State the highest court has declared the zoning of New York City to be constitutional, stating that zoning can be done under the police power if done with care and good judgment so as not to be arbitrary or confiscatory. (Lincoln Trust Company v. William Building Corporation, 229 N. Y. 313.)

How To Get Started

Find out if your state has an enabling act permitting localities to zone, even if your city has a charter with home rule powers. If not, the first move must be to secure specific authority from the state legislature. In the following states zoning is already so authorized:

California	*Missouri
Illinois	*Nebraska
Indiana	New Jersey
*Iowa	New York
*Kansas	Ohio Oregon
*Louisiana	*Pennsylvania
Massachusetts	Rhode Island
Michigan	*Texas Virginia
*Minnesota	Wisconsin
*Act does not apply to all classes of cities.	

This list does not include Connecticut, District of Columbia, South Carolina and Tennessee, acts of which apply to a particular city; and North Carolina,

which has recently passed a City Planning Act granting zoning powers to city plan commissions.

There must be some local official body to initiate the work of zoning. If there is a planning board or commission, that is the logical body to take up the problem. If there is no such body, one should be created, because zoning, to be done with wise foresight, must take account not only of existing conditions and obvious tendencies of growth, but of probable changes and improvements of many sorts. It is part of the general planning problem. It relates to the transportation system, including streets, street railways and other local passenger transportation, railroad freight and passenger service, and water-borne commerce if any. It relates also to public works and utilities, to parks, schools, and many special public and private undertakings.

A Zoning Program

Surveys: A zoning ordinance needs to be based on a comprehensive and detailed study of the precise **local conditions**, both present and prospective. What fits one city or town may be a bad misfit for another. There is no short-cut to good zoning in any community through blindly accepting what has been done for another community. The only safe path is a thorough, open-minded examination of the facts in each community as to existing uses, existing densities and heights of buildings, the customs of the people, and the trend of affairs. In every city there are citizens and organizations having in their possession valuable knowledge of local conditions. These have a large contribution to make to those responsible for zoning, although those who have lived their whole lives in a community do not necessarily realize all that is going on about them.

The zoning of a city requires expert professional knowledge just as the presentation of a case in court requires legal training. But just as the lawyer depends upon the layman to secure his facts, so must the professional zoning expert call upon the citizens for much of the accurate information upon which any good zoning regulations must be based.

Technical Advice: The practice of zoning is relatively new in America. We are feeling our way, and must learn by experience. Those who have had experience tend to become expert, with broader knowledge of practices that are proving effective. These men are becoming gradually more skilled in the methods of getting at the essential facts of any local situation, and in the interpretation of these facts. If they possess insight and sane judgment, their advice becomes increasingly valuable.

Scope of a Zoning Ordinance: A zoning ordinance consists of one or more maps dividing the city into different kinds of districts; and a statement of methods of regulation to be employed in each district in regard to the use to which property may be put, the height and size of buildings, and the amount of space to be left vacant; with adequate provisions for enforcement.

Getting Public Support: In the process of drafting a tentative ordinance, it is important by means of full public discussion, to be sure that the ordinance is an "application of common-sense and fairness" and will "provide each district, as nearly as practicable, with **just such protection** and **just such liberty** as are sensible in that particular district." It is essential likewise to be sure that public opinion as a whole will support it.

Zoning in Operation: A zoning ordinance is of value only as it is properly enforced. Because of the difficulty of making with precision the forecasts on

THE GREAT BOULDER CANYON PROJECT

In a bill now pending before Congress it is proposed that the Federal Government construct a dam on the Colorado River at Boulder Canyon, and thus regulate and control the flow of the river and prevent disastrous flood conditions.

Provision is further made in this bill for the construction by the Federal Government of the All-American canal, a project that will provide for the irrigation of large tracts of arid land.

House bill 11449, which is similar to Senate bill 3511, is drawn to authorize these two projects.

It conforms to the policy recommended in public statements by both the Secretary of the Interior and the Secretary of Commerce, in his capacity of Chairman of the Colorado River Commission, that the United States should reserve to itself the control of all dams to be constructed on the Colorado River, below the mouth of the Green River.

As an incident to the construction of the dam there will be created extremely valuable power rights. The cost of the dam, it is provided, will be charged against these power rights. The cost of the All-American canal and the works in connection therewith is to be charged against the land to be brought under irrigation.

The plan of the Boulder Canyon project has been worked out by the United States Reclamation Service after extensive investigation and as a result of many hearings and long discussions. It is a carefully balanced, co-ordinated program. Its consummation will not affect the rights or claims of those interested in the upper reaches of the Colorado River. And it is provided that

the project, within a reasonable time, will finance itself.

The plan recognizes in a fair and reasonable way the powerful sentiment of the people against permitting this, perhaps the nation's greatest source of hydro-electric power, to pass permanently into private hands. Under this plan power privileges may only be granted to private interests for limited periods of time.

The cities of California have definitely and unequivocally gone on record as strongly in favor of the construction of the Boulder Canyon dam. Agricultural organizations have endorsed it. Chambers of Commerce and civic bodies have expressed their approval.

So far as Southern California is concerned, sentiment is practically unanimous in its favor.

When public sentiment in Southern California demanded collective action for the purpose of solving the Colorado River problem, representatives from more than sixty cities, comprising the Southern California members of the League of California Municipalities, effected a definite organization in cooperation with representatives from farm and irrigation districts.

Official conventions and meetings have been held at various points in Southern California, and elsewhere, particularly at Pasadena, Ontario, Riverside, San Diego, Alhambra, Santa Ana, and Phoenix, Arizona.

The meeting at Santa Ana was held after the introduction of H. R. 11449. At this time the bill was carefully considered and unanimously endorsed, and a committee was appointed to take appropriate steps to urge and promote the early passage of the bill.

Provisions of the Bill

H. R. 11449, which is similar to Senate Bill 3511, provides for the development of the Lower Colorado River, in the interest of, first, flood protection; second, irrigation; and, third, power.

It authorizes the Secretary of the Interior to construct an adequate dam and incidental works at or near Boulder Canyon, also the so-called "All-American Canal" connecting the Laguna dam with Imperial and Coachella Valleys.

It requires the Secretary of the Interior to allocate among the interested states and communities, upon an equitable basis, the right to use the water discharged from the dam for generating power, giving preference to the application of any political subdivision or district for the right to itself make use of the power allocated to it as against any private application for power for serving such community.

It provides for leasing the power rights, so allocated to the applicants, for periods not exceeding 50 years, with provisions similar to those in the Federal Water Power Act for the taking over by the Government, upon the expiration of any lease, at a fair valuation, of the physical properties of the lessee. It further provides that any political subdivision, instead of taking a lease, may, with the consent of the Secretary of the Interior, pay to the United States, in advance, or in installments covering a period not exceeding 25 years, a part of the cost of the dam proportionate to the amount of power allocated to such political subdivision, and thereby acquire a permanent power right, subject to the payment of a proportionate part of the cost of operating and maintaining the dam.

It appropriates not exceeding \$70,000,000 for the construction of these works, with provision for reimbursing

the Government, as to the cost of the dam, from rentals and installment payments or contributions, and, as to the cost of the canal, from assessments upon the lands to be irrigated, to be payable substantially in the manner provided under the Reclamation Act.

It provides that the right to develop power on the canal shall belong to the districts, communities and lands which contribute to the cost thereof, in proportion to such contributions, reserving, however, to the United States the control of such power rights and the proceeds therefrom, until the Government has been fully reimbursed for the cost of such canal.

It preserves all vested rights of the States and their citizens, above the reservoir, to the use of the waters of the Colorado River.

It gives to ex-service men and women a preference right in the settlement of the public lands which shall be irrigated from such works, and, as far as practicable, a preference in all construction work authorized by such act.

At a called convention of representatives of the Southern Section, League of California Municipalities, of the farm bureaus and farm centers of Southern California and of the Imperial irrigation districts held in Santa Ana, California, May 4, 1922, the following resolution was unanimously adopted:

WHEREAS, it is apparent to all persons acquainted with the facts that the great Imperial Valley in California is annually in imminent danger of being overflowed and flooded by the Colorado River; that the menace of this river is increasing with the years; that its bed is filling and rising about one foot a year; that its bottom is now several feet higher than it was when it broke into the valley several years ago and formed the Salton Sea; that its levees must be built higher each year; that the only available dirt for levee construction is very poor material for the purpose; that should the Colorado River break through the levees again its destruction would be immeasurable; and that the havoc of its deluge would be great and appalling because it would not only be immediately destructive, but its evil effects

would be permanent for the reason that its waters would not run off or subside, as in floods most everywhere else, but would gather in the basin of the valley, which is below the sea level, as in the formation of the Salton Sea, and remain until the river again turns to another outlet and until the sunshine of centuries again lifts these waters by evaporation; and,

WHEREAS, relief can be had from this portending catastrophe, and the fifty thousand people and the millions of dollars worth of land and other property in this valley can be made safe by the construction of flood control dams in the river basin; and hundreds of thousands of acres of additional lands can be irrigated, and immense amounts of hydro-electric power can be developed; and,

WHEREAS, House of Representatives Bill No. 11449, "To Provide for the Protection and Development of the Lower Colorado River Basin," introduced in the House of Representatives by Congressman Phil Swing and in the Senate by Senator Hiram W. Johnson, is a measure looking to the early accomplishment of these purposes in the best and most practical manner;

NOW, THEREFORE, BE IT RESOLVED by the joint convention of the representatives of the Southern Section of the League of California Municipalities, of the Farm Bureaus and Farm Centers of Southern California and of the Imperial Irrigation Districts, duly assembled in the City of Santa Ana, California, on Thursday, the fourth day of May, 1922, pursuant to call and notice regularly made and given.

That House of Representatives Bill No. 11449, "To Provide for the Protection and Development of the Lower Colorado River Basin," be approved and endorsed;

That we urge upon the committee on Irrigation of Arid Lands and upon the Congress the imperative necessity of an early report and passage of this bill, that the relief therein proposed may soon be given;

That we request the Senators and Congressmen from California to give their special attention to this measure and press its adoption.

The Flood Menace

In the southeast corner of California is located the Salton Sea Basin, which lies from 50 to 250 feet below sea level. It is 110 miles long by 40 miles wide and has a population of approximately 70,000.

The southeast portion of the basin, sloping from the Mexican boundary line to the Salton Sea, is known as Imperial Valley. Northwest of the Salton Sea lies that part of the basin known as Coachella Valley.

Although of exceedingly fertile soil,

this region from time immemorial had remained a hot, forbidding, desert waste. When the work of reclamation began it immediately became apparent that the same river that supplied the water needed by the farmers would, through its annual floods, be a constantly increasing menace to the inhabitants of the valley.

Levees were constructed by the people of Imperial Valley in an effort to hold the river in its course. Against its floods these works, at best, could give but temporary and uncertain protection. With the coming of each season's high waters serious breaks in the levee system have occurred, resulting in heavy losses.

In 1906 the river broke from its course entirely, washed aside the levee and dikes and overwhelmed thousands of acres of producing land.

Hundreds of thousands of tons of silt are deposited by the river from season to season, along its lower reaches. These deposits have served to raise the bed of the stream until now the Colorado River is riding on a ridge many feet above the surrounding country.

Federal Control Imperative

More than \$10,000,000 have already been expended in the construction of flood protective works along the Lower Colorado River. The following table lists the several sources from which these expenditures have been made:

U. S. Reclamation service	\$ 3,070,000
Special Congressional Acts	1,100,000
Southern Pacific Railroad Co.	3,000,000
Imperial Irrigation District	2,834,920
Total	\$10,004,920

Despite the magnitude of these expenditures, they have failed to provide for Imperial Valley any sort of permanent flood protection. Each flood season finds the waters of the Colorado threatening to break from their uncertain course; each flood season compels

the spending of additional large sums of money to hold back the river for a few more months.

Thus it becomes obvious that no matter how extensive its protective work—no matter how many millions of dollars are expended in the building of levees—nothing can be done by Imperial Valley that will provide adequate flood protection. Regulation of the river's flow is the only source of safety. The river being an international and interstate stream, the Federal Government is the only agency which can effect this regulation.

RESOLUTION

(Adopted by the Executive Committee of the League of California Municipalities.)

WHEREAS, because of lack of coal and the fast diminishing supply of oil, cheap hydro-electric power is essential to the well being and development of California, and

WHEREAS, the development of additional water supply is essential for the agricultural, industrial and domestic purposes; and

WHEREAS, the great resources of unappropriated water and hydro-electric power lie in the public domain, in the great mountain systems of California, and in the Colorado River basin, and have been held for the sole direct benefit of the people, therefore, be it

RESOLVED, by the California League of Municipalities, in convention assembled, at Santa Monica, September 29, 1921, that we call on the federal government and the federal water and power commission to maintain and carry forward the great reclamation policies as inaugurated by Theodore Roosevelt; be it further

RESOLVED, that we call on the federal authorities to build the necessary Boulder Creek Dam in the Colorado River basin, and to hold the hydro-electric power that may be developed therefrom, subject to the uses of the adjacent States and municipalities under public ownership.

THREE GREAT BENEFITS

California is of the united opinion that the Colorado River can best be controlled by the construction of a dam at Boulder Canyon. This dam, as it has been proposed, would accomplish three tremendously important ends;

It would assure protection from floods.

It would provide dependable irrigation

for 2,000,000 acres, including 750,000 acres now irrigated by the Colorado River.

It would serve as a site for the development of 600,000 continuous horsepower of electric energy.

Situation of Boulder Canyon

Boulder Canyon, situated at the Arizona-Nevada line, about 110 miles below the Grand Canyon, is the lowest site on the Colorado River where a reservoir can be established of sufficient storage to insure complete flood protection for Imperial Valley. It is necessary that the dam be constructed as far down the river as possible in order to provide for the regulation of not only the Colorado River, but all its larger tributaries, as well.

The dam at Boulder Canyon would be ideally located as a central source from which hydro-electric power could be economically delivered, on one side, to the cities, irrigation districts and mines of Arizona and Nevada, and on the other, to the cities and irrigation districts of Southern California.

As outlined by the United States Reclamation Service, the dam would rise 600 feet between the canyon walls from the level of the river and would extend 130 feet below the river level to bedrock. About 200 feet wide at its base, it would widen fan-like to meet the receding walls of the canyon, until at its crest it would extend 1,000 feet across the deep chasm.

A reservoir would be established by the dam extending 80 miles up stream with a capacity of 30,000,000 acre feet. Stated in another way, the water that could be stored in this huge artificial lake would cover to a depth of one foot, 30,000,000 acres of land.

Power Will Pay the Cost

The primary purpose of the Boulder Canyon dam would be to provide flood protection, and second to this, irrigation in the lower basin of the Colorado River.

Imperative and important as these two are, it has been pointed out by the United States Reclamation Service, that from neither of these benefits can be returned to the Government sufficient revenues to repay the expense of constructing the dam.

It is obvious that if the construction of the Boulder Canyon dam is to be placed upon a self-financing basis, the dam itself must be built to sufficient height to provide for the development of large quantities of hydro-electric power.

To construct a dam at Boulder Canyon of a type that would exclude water power development, would be, as California believes, a gross economic blunder. It would mean the creation of an enormous debt and failure to take advantage of the opportunity to make the enterprise pay for itself.

On the other hand, the dam, as it has been proposed by the United States Reclamation Service, in addition to providing for flood protection and irrigation, would be a source of electric energy to the amount of approximately 600,000 continuous horse-power.

This electric energy would be readily absorbed in the power markets of the adjoining states, and would afford an adequate basis for reimbursing to the government its entire outlay on the construction of the dam.

Conserving Fuel Oil

The amount of hydro-electric energy expected to be delivered from the Boulder Canyon project, if used under average conditions to electrify railroads, for industrial, commercial and domestic power purposes, will displace 23,000,000 barrels of fuel oil annually.

This is significant in view of the fact that at the present time 30,000,000 barrels of oil a year is the average consumption for the same purposes in Southern California and territory natur-

ally tributary to the Boulder Canyon dam site.

It is becoming increasingly important to conserve fuel oil in this country. The available supply is being diminished each year, and its consumption has reached the point of being equal to, and at times exceeding, its production in this region. Official estimates have placed the peak production of fuel oil in the United States at a time not more distant than 15 years hence.

A careful study of the situation discloses that railroads within economic reach of the Boulder Canyon project are burning over 13,000,000 barrels of oil each year. Fuel oil consumed in the territory tributary to the dam site, for the production of power, in addition to that used by the railroads, amounts to 4,000,000 barrels annually.

All of this oil can be saved by the use of electric power from the Boulder Canyon dam. In addition to this, considerable fuel oil may be conserved, which is now used in the manufacture of gas for cooking and industrial heating.

It should also be noted that in the production of power in the Southwest great quantities of natural gas are being used from fields of known limited life.

Markets for Boulder Canyon Power

Looking to the immediate future, provision must be made for the rapidly increasing commercial and industrial power needs of the Southwest by the development of additional hydro-electric power, or increased use of fuel oil will result—an increased use that cannot well be afforded throughout the nation generally.

As proof of the increasing demand for power in that part of California tributary to the Boulder Canyon dam, it may be stated that the use of power in Los Angeles, during the last five years, has averaged a 20 per cent increase annually.

This means a doubling of power needs every four years.

It is estimated that by the end of 1922 the quantity of electric power used in Southern California for that year will amount to 2,289,300,000 K. W. H. The total continuous power output from the Boulder Canyon project will amount to 600,000 horsepower or 3,942,000,000 K. W. H. annually.

Combining the amount of power now used with the amount that will be available for use from the Boulder Canyon project gives a total of 6,231,300,000 K. W. H.

In view of the past and present rate of increase it is extremely conservative to estimate that the consumption of electric power will continue to increase at the rate of 15 per cent compounded annually. With that rate of increase in effect the end of 1929 will find in Southern California a power demand of 6,089,000,000 K. W. H. per annum. If, to this is added approximately 200,000,000 K. W. H. to meet the power needs of Southern Nevada and Arizona, it will be seen that all of the Boulder Canyon power will be absorbed by the end of 1929.

In addition to the consumption of 200,000,000 K. W. H. in Southern Nevada and Arizona, it may be conservatively estimated that there will be a ready market for 100,000 K. W. for railroad electrification, 75,000 K. W. for mining operations and 100,000 K. W. for the uses of metallurgical industries. This total of 275,000 K. W. increases the consumption by 1,204,500,000 K. W. H. per annum and will advance the date when all of the Boulder Canyon power will be readily absorbed to the end of 1927.

Boulder Canyon power would have the advantage in cost and time of development as against any possible source of power for this market.

Irrigation Possibilities

Boulder Canyon dam will impound enough water to irrigate 2,000,000 acres

of land in Arizona, Nevada and California. Of this total area, 750,000 acres, already under cultivation would be given an improved and dependable water supply, and 1,250,000 acres of new land, that lie for the most part a desert waste, would be made fruitful by irrigation.

The 1,250,000 acres of new land that would be supplied with water by this project include 225,330 acres of public land which could be made available for settlement by homesteaders.

Special provision has been made in H. R. 11449 to give ex-service men prior rights in the settlement of these new homesteads.

Public lands subject to settlement lie as follows:

Cotton Wood Island, 4,400 acres.

Mohave Valley, 1,500 acres.

Chemehuevis Valley, 1,400 acres.

Palo Verde Mesa, 800 acres.

Cibola Valley, 4,700 acres.

Chuckawalla Valley, 8,500 acres.

Yuma project, 38,200 acres.

Extensions in Imperial Valley, 165,830 acres.

The above listed tracts of public land in Arizona, California and Nevada do not include 169,910 acres of Indian and State lands.

All-American Canal

Definite provision is made in H. R. 11449 for the establishment of the All-American Canal, which would make possible the distribution of water from the Colorado River to approximately 900,000 acres of land in Imperial and Coachella Valleys, including about 450,000 acres now supplied by the existing systems and about 450,000 acres of land now arid, which could be supplied by the proposed canal.

By far the greater proportion of the land which would be irrigated from the All-American canal could be reached by

(Continued on page 206)

HEALTH OFFICERS' SECTION

EAT MORE FRUIT

By M. E. JAFFA, M. S.

Consulting Nutrition Expert, California State Board of Health

In view of the approaching fruit season it may not be out of place to enter a plea for the larger use in the diet of fruit and fruit products.

Some years ago fruit was considered by the majority of persons as an accessory or supplementary food eaten for its agreeable flavor or supposed hygienic or medicinal virtues rather than a staple article of diet. Later, when the composition of fruits had been more carefully determined, it was realized that they were a source of carbohydrates, mainly sugar, and in the discussion of the food value of fruits at that time only the carbohydrates were emphasized; no mention was made of any other nutritional value. Our knowledge of fruit to-day, due to the progress of work in nutrition, is much more complete.

Among the many investigations, with reference to the nutritional value of the different foods which have been carried on during the past decade, there are three which stand out very prominently, namely:

1. Those relating to the biological value of the different proteins.
2. Those relating to the importance of mineral elements in nutrition.
3. Those relating to the vitamins and their role in nutrition.

Low in Protein Content

In view of the fact that all fresh fruits, with perhaps the exception of some varieties of the avocado, are low in protein, they never can be considered as a material source of this most im-

portant nutrient, and therefore in discussing this subject we do not have to concern ourselves with investigations in connection with the proteins. The results of the other two series of investigations, however, are vitally concerned with the discussion of the place of fruits in the diet and speak for the larger consumption of fruit by both old and young.

When considering the new phases of the nutritional worth of fruits we must not overlook the fact that the main source of calories in fruits is sugar. The consensus of opinion among physiologists and nutrition investigators is that the carbohydrates of our food and not the nitrogenous compounds are the source of muscular energy for the body. We can thus better appreciate, then, the high nutritive value of dried fruits. The average amount of carbohydrates, mainly sugar, in the dried fruit is about 62 per cent, while the average amount of carbohydrates, mainly starch, in flour is 75 per cent. In other words, the carbohydrate element in the dried fruits is not very much below that noted for flour. If we refer these data to the grain itself then the carbohydrate content of dried fruits very closely approaches that of the grain. The same is true in regard to jams, preserves and other concentrated fruit products.

The object of this brief article is to present further data, based on late investigations, in order that we may more fully realize the high nutritional worth of fruits.

The importance of the mineral elements in nutrition has been but lately brought to the notice of the laity and too much stress cannot be laid upon this point. We have in our foods two general classes of mineral matter, one, acid-forming elements and the other, base-forming elements. In order that we may have the optimum conditions for growth and development in the young and health and activity in the adult we must have a proper balance between these two classes. Such a balance is impossible on a diet consisting of meat, eggs and the cereals in that the mineral elements of such a diet would be productive of an acid condition not desirable in the body. In order that this condition may be avoided it is essential that the diet contain a generous amount of fruits and vegetables. The chief mineral elements in the "acid-forming" foods are phosphorus, sulphur and chlorine. The counteracting basic elements in fruits and vegetables are mainly lime, magnesium and sodium. Again, fruits far outrank the cereals in content of iron so necessary to meet the demands of blood and tissue formation in the body. This is especially true of such fruit as raisins, prunes and figs, which are, comparatively speaking, rich in iron. These facts alone would be sufficient, from the standpoint of nutrition, to call for a more generous representation of fruit in our daily menus.

Vitamins in Fruits

The third important series of investigations above noted refers to the vitamin content of our foods. For the purpose of this article three facts must be accepted:

1. There are three types of vitamins, A, B and C; A being soluble in fat and B and C being soluble in water.

2. Vitamins are unidentified dietary essentials; therefore,

3. No diet can be complete without them.

It is admitted by all that there is no better source of vitamins A and B than milk, but it must also be admitted that milk is not the only source of these vitamins. In this connection it is of great interest to note that with the increased number of studies that are conducted with reference to the vitamin content of our different fruits the more gratifying are the results, in that fruits are found to be, as a rule, an excellent source of vitamins B and C. Relatively little attention has yet been given the examination of fruits for vitamin A, so that it is not possible to draw any definite conclusions on this point. The present knowledge of the value of fruits as sources of vitamins B and C is more than adequate to justify the literal use of fruit as a staple article of food and not merely to consider it as an accessory or luxury.

The citrus fruits, while, as is the case with other fruits rating low in protein, are rich, comparatively speaking, in mineral matter and vitamins B and C. Osborne and Mendel found that in the fresh fluid form, orange, lemon and grape fruit juice were found to contain about the same concentration of vitamin B as does milk.

Citrus Fruits Valuable

There is no better source of vitamin C than the juice of the citrus fruits. This statement is based on the findings of the investigators at the Lister Institute, London, who rate, with reference to content of vitamin C, fresh lemon juice, fresh orange juice, ripe onion and fresh cabbage juice as 100 and all other foods much lower. In order to emphasize this point it might be said that the next

highest figure, 60, is quoted for tomato juice. These findings alone should call for a very extended use, and a much larger use than at present, of the citrus fruits and particularly the consumption of lemonades and orangeades true to name. In this connection there is a great opportunity for furthering the fruit industry by the public demanding at soda fountains, lemonades and orangeades made from pure juices and not the synthetic product now so plentifully at hand.

The nutritional value of the synthetic article, that is, the artificial product, lies mainly in the sugar of the syrup added, that is, the syrup which carries the artificial colors and the artificial flavors. Such a syrup has no nutritional value other than the sugar. It does not contain the mineral matter and it does not contain the vitamins. These two facts alone should be the reason for people demanding the pure article, particularly for the young and growing child. A glass of lemonade made from the juice of the lemon contains just as much sugar as does the artificial product, but in addition contains the most valuable mineral matter and also the vitamins B and C, absolutely essential for the diet. It is therefore to be hoped that during the coming summer there will be in the light of these facts a much larger demand for orangeade and lemonade true to name and not artificially made. Not only does the pure article possess a far higher nutritional worth than the artificial, but it is decidedly more palatable and desirable.

The orange juice and lemon juice, also that of the grape fruit, are rich in potash and lime, which are, as previously stated, very essential for the proper balancing of the total mineral elements of our diet, and in addition to this the ripe orange contains about 12.5 per cent of sugar, which, as above indicated, is one of our best sources of energy for the human body.

Have Therapeutic Value

In addition to the nutritional worth of fruits as outlined in the foregoing, there is a therapeutic or hygienic value which must not be lost sight of. Most fruits are more or less laxative, due to the content of fiber, the small seeds, etc., they contain, or to salts in solution, or to both. Fruits supply also bulk so necessary for the properly balanced diet and so beneficial for optimum intestinal action.

Oranges and citrus fruits in general are used in invalid dietaries, their juice allaying thirst very effectively and it has been stated by physicians that orange juice can be borne often by even the most irritable stomach. Again, orange juice is a valuable addition to the diet of the infant for the purpose of insuring an adequate supply of vitamin C, which is present in small amounts only in fresh raw milk.

Deciduous and citrus fruits can be eaten without restriction by those suffering from gout and kindred troubles.

In conclusion it should be said that if the diet of the average person included more of the foods of high biological value, rich in protein, mineral matter and vitamins, there would be no inducement for the manufacture and sale of the various vitamin preparations now so glowingly advertised in our daily press.

Arrest on Suspicion

A recent decision (*ex parte Caselli*) of the chief justice of Montana in *habeas corpus* proceedings brought before him, declares that a person arrested by a health officer's order on suspicion of having a venereal disease is not entitled to a hearing before the taking and de-

tention. The case is the result of an order of the health officer of the city and county of Missoula, made under the State quarantine regulations, in regard to a certain woman whom he believed to have gonorrhea. She was arrested by the sheriff and detained, whereupon she applied to the court for a writ of *habeas corpus* claiming release on the grounds that she had not been given a judicial hearing before being detained by the sheriff and that facts did not exist to show that she had the disease and would so conduct herself as to endanger others. The chief justice finds that the health officer is upheld by the right of the State to protect itself by prompt and speedy action from the spread of contagion, and that it is his province to order the detention and isolation of any person reasonably suspected of having a communicable disease. If the person arrested challenges the right of the authorities to keep him in detention, he is entitled to have the matter inquired into, but he is not entitled to a hearing before the detention begins. In the Missoula case, facts presented to the court, notably the testimony of the State bacteriologist, established that the woman had gonorrhea. The only doubt in the case, the justice's decision announces, was whether she would be dangerous to others if allowed to go free, and though he found the testimony on this point "not satisfactory," he decided that testimony to repeated misconduct within a short time of her arrest was sufficient to "justify the inference" that she would be a menace to public health if at liberty.

He therefore discharged the writ and remanded her to the custody of the sheriff to be kept in detention "until she became cured or until she may be safely allowed to go at large."

FAIR GROUNDS SANITATION

County and community fairs, as well as outdoor expositions and carnivals are being held continuously in California from early spring to late fall. In most places, until recently, little or no attention has been paid to the sanitation of the grounds occupied by such fairs and expositions. There is a disposition now, however, upon the part of executive officers of county fairs to maintain the strictest supervision possible over the sanitation of grounds. For the benefit of such persons, in order that they may have a guide to the essentials in sanitation, the California State Board of Health regulations for fair grounds are published herewith. These regulations have been enforced for many years by the California State Board of Health in cooperation with the Sacramento City Health Department with the result that the state fair grounds, where the California State Fair is held every year, are kept in the highest degree of perfection as regards sanitation of grounds, restaurants, eating houses and refreshment stands. This has been accomplished only through the full support and active cooperation of the directors of the fair, and the secretary, Charles W. Paine.

Regulations for the Sanitation of Fair Grounds

Rule I. A water supply of sanitary quality shall be provided in ample quantity to meet all requirements of the maximum number of persons using or attending any public fair grounds in California. Said water supply shall be easily obtainable from its source or from faucets on a pipe distributing system within the grounds.

Rule II. Fly-tight privies, water-flushed toilets or other toilets shall be provided and shall be maintained in a

clean and sanitary condition. Separate installations for men and for women shall be provided and they shall be adequate for the accommodation of all persons attending or using the fair grounds.

Rule III. Supervision and equipment sufficient to prevent littering of the ground with rubbish, garbage or other refuse shall be provided and maintained. Fly-tight depositories for such materials shall be provided and conspicuously located. These depositories shall not be permitted to become foul smelling, or unsightly, or breeding places for flies. Contents must be removed at least every 24 hours.

Rule IV. All places where foodstuffs are sold or exposed for sale must be made fly tight by screening all openings with wire screening of not less than 14 mesh. Adequate facilities for the proper washing of dishes must be provided in all such places. The term "foodstuffs" includes both raw and cooked food, candy and any other food not sold in single service containers.

Rule V. Drinking utensils, unless individual paper cups are used, must be sterilized in accordance with Chapter 744, Acts of 1917. The following methods may be used:

(a) Sterilization by steam in an apparatus acceptable to the State Board of Health.

(b) Immersion for fully five minutes in boiling water. (To avoid unnecessary breakage it is advised that glasses be placed in cold water and then container heated until the water boils.)

(c) Immersion in 5 per cent solution of lye or caustic soda, preferably hot, but not necessarily boiling. To accomplish this a solution of lye is made of a strength of one pound of lye to two and a half gallons of water. Because this solution is irritating to the skin the receptacle

should be placed in a wire basket, immersed in the solution for 5 minutes, then the basket carried over to a water bath to remove the lye solution.

Rule VI. All cold drinks must be kept in fly-tight containers, from which the liquid may be removed only by faucets.

State Keeps Its Fair Grounds Clean

The California State Fair Grounds in Sacramento, during the 1920 State Fair, were kept in the very best of sanitary condition. All soft drinks were kept in covered containers; paper cups were used in dispensing the drinks which were drawn from the containers through spigots. Drinks peddled on the grounds were served only in original containers and straws were supplied by the vendors. Ice cream sandwiches were manufactured on the grounds by machinery. These were sold, together with ice cream cones, in the booths where they were manufactured. Ice cream cones were dispensed on the ground stands and throughout the grounds, only in covered wooden portable containers, thereby protecting them from dust, dirt and contamination.

Restaurants were housed in permanent buildings which were screened against flies and other insects. An ample water supply was provided and sinks were installed; containers for waste were provided. Waste containers were also distributed throughout the grounds. These consisted of covered metal receptacles provided by the fair management. Refuse was collected daily and removed from the grounds. Used paper cups and straws were placed in covered containers and destroyed.

A sufficient number of toilets for men and women, as well as women's rest rooms, were provided in permanent buildings. A nursery was established in the women's building where large num-

bers of children could receive adequate care.

The management of the California State Fair has found that it is good business to provide for the sanitation of the fair grounds. People are not inclined to patronize fairs and expositions where dust, dirt and flies, to say nothing of worse conditions are present. Local health officers are glad to cooperate with the management of these institutions for the purpose of assisting in the provision of adequate sanitation for all county fairs that may be given in California this year. The State Board of Health is also prepared to give assistance to the management or any officials who may desire help in securing better sanitation of fair grounds.

(State Board of Health Bulletin)

Who Knows?

Why do we breed morons? Is it because we wish to have social ills and then organize and support societies for amelioration and reform? Who knows?

Why do we breed idiots? Is it because we wish to increase taxes to build asylums for them? Who knows?

Why do we breed mosquitoes? Can it be because we wish to have malaria? Who knows?

Why do we breed degenerates? Is it because we wish to increase taxes to build more institutions, and to relieve the miseries they bring? Who knows?

Why do we build and maintain hospitals? "To care for the sick, of course." Oh, yes, but why be sick? Is it because we haven't enough practical sense to keep well? Who knows?

Why do Americans spend five hundred million dollars annually for drugs? Is it because they like their taste, or is it because they have not yet risen out of the drug stage of ignorance? Who knows?

Is civilization an organization which aims to secure the survival of the unfit? Who knows?—Indiana Bulletin.

There was a man who fancied that

By driving good and fast,

He'd get his car across the track

Before the train came past.

He'd miss the engine just an inch.

And make the train crew sore.

There was a man who fancied this—

But there isn't any more.

—Concrete Highway Magazine.



ITEMS OF INTEREST

Marysville to Have City Manager

According to a recent announcement of Mayor Frank M. Booth, James O. Wanzer of Santa Cruz, has been tentatively employed as City Manager of that city.

The City Council of Marysville has made a careful study of the various forms of municipal government and found that the city manager plan is the most successful ever devised. The plan will be adopted by ordinance and it is expected that the city manager will take office about July 10th.

The City of Marysville will never regret this forward step in municipal government. It is to be hoped that the adoption of the plan by ordinance is only temporary and that the city will soon adopt a bona fide city manager charter.

The rapid rise of the city manager form of government throughout the United States and particularly in California has been truly phenomenal; there is a veritable epidemic of popular demand for this form of government sweeping the state. So general has been the demand for information on the subject that the "League" has sent out questionnaires to the cities of the United States operating under the city manager plan.

The data contained in the answers to these questionnaires are a positive gold mine of information and most conclusively prove the universal success of the plan. Excerpts from these replies will be a matter of interest for our readers to look forward to in our next issue. The complete file will be loaned to any municipality desiring information on the subject.

Lord Bryce said of municipal government in the United States that it is our one conspicuous failure. The city manager plan opens the way to refute this charge. It makes a real business of government. To institute a campaign for the city manager plan is a sign of a live and progressive community.

The Executive Secretary Goes East to Speak on Water and Power Act

The progressive League of Georgia Municipalities invited Mr. Wm. J. Locke to address their annual convention at Atlanta on June 29th. Mr. Locke spoke to the assembled delegates at a luncheon on "The Work of the League of California Municipalities" and in the evening to the delegates and the members of the Georgia legislature at a banquet on the subject of "Public Ownership in California with particular reference to the proposed 'Water and Power Act.'"

It is reported that a campaign for public ownership and development is projected in Georgia and the progressive achievements of California along these lines are being viewed with much interest.

While in the East Mr. Locke will also view the hydro-electric development projects at Niagara Falls and will visit Washington, D. C., in behalf of the Boulder Canyon project. He will return to California about July 5th.

Alhambra City Manager Gets Raise in Salary

The City of Alhambra has just voted a \$300,000 bond issue with which to construct the trunk line sewers to serve the entire future city which it is estimated will accommodate a population of 85,000. The bond issue will also build

Alhambra's interest in an Activated Sludge Treatment Plant.

It is proposed at the same time to form sanitary improvement districts and construct sewers for the remainder of the city. The plans contemplate an expenditure of approximately \$1,000,000.

The city manager's salary has again been increased—this time to \$5,000.

Santa Rosa

This city will spend \$50,000 for improving the municipal water system this summer, the same being a bond issue.

The Board of Freeholders are progressing finely with the new charter. Mr. Wm. J. Locke has been engaged as charter consultant and the board is endeavoring to make the charter a model one for cities of this size. The charter will embody the city manager plan.

Market Street Railway of San Francisco Asked to Name Price

The proposed purchase by San Francisco of the Market Street Railway Company's rights and properties took a step forward yesterday, when the chief clerk of the Board of Supervisors wrote to William von Phul, president and general manager of the street car company, requesting the company to submit an estimate of the valuation of the properties, as a special committee of city officials appointed by Mayor James Rolph, Jr., to handle negotiations with a view of purchase had failed to agree on the matter. The letter reads as follows:

"Market Street Railway Company,
"58 Sutter St., San Francisco, Cal.

"Gentlemen: The committee authorized by the Board of Supervisors to consider and negotiate concerning the possible purchase of the Market Street Railway Company properties has had

several conferences without arriving at an agreement as to the value of said properties.

"Therefore, at the last meeting a motion was adopted requesting the Market Street Railway Company to submit a definite proposition as to the price at which it is willing to sell its properties to the city and county.

"If possible, the committee would like your company to also submit a basis upon which you arrive at valuation.

"Inasmuch as this matter has been under consideration for some time and the committee, of which Supervisor Shannon is chairman, desires to bring it to a conclusion, you are earnestly and respectfully requested to present your proposition by July.

"Very truly,

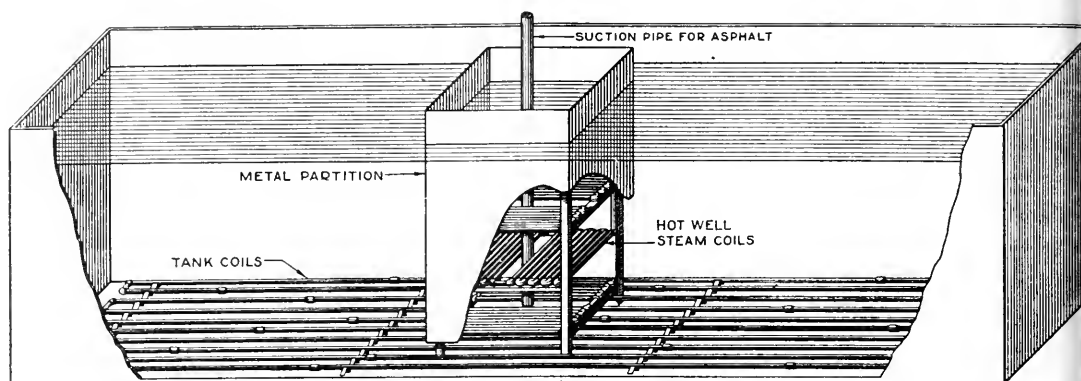
"JOHN S. DUNNIGAN, Clerk.

"June 14, 1922."

A conference on the proposed purchase will be called by Supervisor Warren Shannon, chairman of the special committee and also of the Supervisors' Public Utilities Committee, immediately upon receipt of an answer to this letter.

Survey of Goat Island Ordered

Under the direction of Major-General Lansing H. Beach, chief of engineers, United States Army, chairman of the Federal Commission which has been considering the proposals that a union ferry terminal be constructed on the shoals adjoining Goat Island on the north, a survey will be made immediately to determine tidal action on the proposed changes in the trestle and fill. A thorough inspection of the harbor and its navigation aspects will be conducted by General Beach before the commission, of which he is the head, makes its report to Washington.



THE HOT-WELL HEATING SYSTEM BEST FOR ASPHALT STORAGE PITS

The hot-well system of heating is recommended to all users of asphalt storage pits. This system is practical and economical. Based upon the fact that a small quantity of material requires less time and energy to heat than a large quantity, the use of the hot well precludes the heating of the entire contents of the pit to the working temperature. With it a ready supply of asphalt is made available without the heating of any unnecessary quantity. A very appreciable saving in time and fuel is effected.

The entire contents of the pit are raised to a temperature of 140-150 degrees F. with tank coils. At this temperature the material becomes liquid. In the hot well the asphalt is heated and maintained with a number of hot-well steam coils (see illustration above) at a working temperature of 260 degrees F. The supply in the hot well is readily maintained. As the asphalt is drawn off,

more flows in from the surrounding liquid. In this way a sufficient quantity at the working temperature is always available in the hot well for use.

The advantages of the hot-well system of heating over the heating of the entire contents to the working temperature may be briefly summarized as follows:

(1) The use of the hot well precludes the heating of the entire contents to working temperature. There is no heating of an unnecessary quantity of asphalt.

(2) Smaller radiation losses, due to lower average tank temperatures. Less heat lost in intervals between working periods.

(3) Quicker heating of a quantity sufficient to supply requirements. Decreased fuel consumption.

(4) Less steam needed to heat a working supply. Smaller steam plant required, with lower initial cost and reduced operating expenses.

Advertising California Highways

Railway activity in advertising highways as a means of developing travel is a new feature.

One of the California rail systems has advertised in the papers of the east that California has 6,000 miles of splendid highways. The advertisements occupied quarter page space in the leading publications.

Keeping Highways Clear

The action of the California Highway Commission in keeping unnecessary signs and other structures off the right of way of the State highways has been seconded by the Supervisors of Kings, Tulare and other counties who are following the same policy.

AVERAGE COST OF ILLUMINATING STREETS IN FIFTY BEST LIGHTED CITIES ABOUT \$2.05 PER CAPITA

Rate Depends on Various Factors—Highest Is \$4.81—That for Entire United States Is About 75 Cents—Ornamental Systems and “White Ways”
—Proper Spacing and Height of Units to Meet Various Conditions.

By A. F. DICKERSON, Chief Engineer.

(Illuminating Engineering Laboratory, General Electric Co., Schenectady, N. Y.)*

In 1919 the average total municipal expenditure per capita for all cities in the United States of over 30,000 population was \$21.23. Of the \$5.25 spent for safety and protection, only 72 cents was for street lighting. The over-all service purchased by the \$5.25 expenditure could be greatly improved by a reallocation which would increase the street lighting budget by a few cents.

What is a fair yearly expenditure per capita for street lighting? Local conditions, electric rates, area, per capita and many things influence this figure. For the whole United States it is about seventy-five cents. There are a few cities spending over three dollars, the highest being \$4.81. The average for the fifty best lighted cities will be about \$2.05.

In New York State, of all cities and villages of over 5,000 population only one expends over \$2.50 per capita for street lighting. Three expend between \$2.00 and \$2.50; five between \$1.50 and \$2.00, and twenty-four between \$1.00

and \$1.50. Others are below \$1.00. The best lighted cities, both in New York and in the entire United States, are now paying from \$1.50 to \$2.00 per capita for street lighting.

The yearly cost of street lighting will vary from about two cents per linear foot of street for the poorly lighted village to over five dollars for an intensive “White Way” system such as that on Market Street, San Francisco. The latter figure may seem extravagant and would be for a municipality, but such lighting is considered as a commercial investment and its cost is usually borne by abutting property owners and merchants.

Street lighting occupies an important place in the “City Beautiful” movement. A line of ornamental standards forms the one unifying architectural element of a street. Practical needs should not be given consideration ahead of the aesthetic, for it is always possible to combine the two satisfactorily and economically. The visible portion of an

*(Abstract from a paper read before the New York State Conference of Mayors and other city officials at Poughkeepsie, N. Y., June 7, 1922.)

ornamental street lighting system represents less than half the total cost. The fixed charge part of a rate, covering interest and depreciation, is usually from one-seventh to one-eighth of the total installation cost, so that for each one dollar additional in the yearly rate approximately fifteen dollars may be added to the initial cost of the standard and lighting unit. Therefore it is usually "penny wise and pound foolish" to consider first cost in the selection of these items.

In an ornamental system, usually, nearly one-half the rate is the interest and depreciation on the original installation. Operation, maintenance of the entire system, power, taxes, commercial costs, insurance, overhead costs and profit make up the balance of the rate. In the overhead system these latter items represent a much larger portion of the total than in the underground, so that greater consideration should be given to efficiency of the unit and ease of maintenance. In either case a large saving may always be effected by the use of as few large lamps as possible rather than a great number of small ones. Cleanness is of extreme importance, as often a few months accumulation of dirt will decrease the output of a fixture by a third or more.

White Ways

The successful White Way system must brilliantly illuminate the street and abutting building facades at night and be an architectural ornament in the daytime. For such lighting, the 6.6 ampere ornamental luminous arc and the 600, 1,000, 1,500 and 2,500 candlepower Mazda lamps, in a great variety of fixtures are available. In many large cities it is often desirable to install two or more of these units on one standard, making an "intensive or super-white way." Examples are the main streets of Salt

Lake, San Francisco, Los Angeles and Saratoga.

Large units, such as the 4, 5 and 6.6 ampere pendent luminous arc and the 250, 400, 600 and 1,000 candlepower Mazda lamps are usually spaced from 150 to 300 feet on one or both sides of the street, depending on traffic conditions. These should be mounted from 20 to 25 feet and the Mazda lamps should usually be equipped with refractors, especially where the spacings are long.

Most residential streets now have 250, 400 and 600 C. P. pendent Mazda lamp fixtures or 4 ampere luminous lamps at street intersections and sometimes at intermediate points, with mounting heights from 20 to 25 feet. The modern tendency, however, is toward ornamental standards with small lamps, usually 250 C. P. spaced staggered, or in central parkings with one standard to each 80 to 125 feet of street or opposite on wide streets with approximately 100 to 125 foot spacings. The most satisfactory lamp height is about 12 feet. In parks it is customary to light the important roadways as described above and the large open areas with high pendent units equipped with large lamps.

In unsettled portions of cities and in small villages, a low roadway illumination is sufficient, and can best be secured with 100 and 250 C. P. Mazda lamps in center span or bracket type fixtures. In most cases spacings should be from 100 to 250 feet, but longer spacings may be used with 250 C. P. or larger lamps when equipped with a refractor. Mounting heights should be from 15 to 25 feet, depending on the distance between units and the size of lamps used. When the main street of a village is also a through state highway, much higher intensities are required and often it is desirable and advantageous to install ornamental fixtures.

TABLE OF RECOMMENDATIONS

Class	Available Lamps	Mounting Height Feet	Spacing Feet
Intensive White-Ways.....	6.6 Amp. Luminous Arcs, 1,000, 1,500 and 2,500 C. P. Mazda lamps.....	18-25	100-150
White-Ways.....	4 and 6.6 Amp. Luminous Arcs, 600, 1,000 and 1,500 C. P. Mazda lamps.....	14-16	80-125
Wholesale Mfg. Districts and Thoroughfares.....	4 and 6.6 Amp. Luminous Arcs, 250, 400, 600 and 1,000 C. P. Mazda lamps.....	20-30	150-300
Residential Streets, Boule- vards and Parks.....	4 Amp. Luminous Arcs, 250, 400 and 600 C. P. Mazda lamps ...	12-25	100-300
Outlying Districts and Alleys.....	100 and 250 C. P. Mazda lamps ...	15-18	100-300
Highways.....	250 C. P.....	30-35	250-400

The suggestions as outlined above are general and naturally each proposition will demand thorough investigation and specific recommendations.

THE IMPORTANCE OF FIRE RESISTANT ROOFING AND THE MERITS OF ASPHALT SHINGLES FOR THIS PURPOSE

During the five years 1916 to 1920 Americans have been burning up property at the rate of \$334,544,535 a year according to the National Board of Fire Underwriters which has been making a study of more than 3,000,000 fires occurring within that time. The total loss for the period of \$1,672,722,677 would, according to engineering authorities, be sufficient to build 334,000 dwellings at \$5,000 each—enough housing to care for 1,700,000 persons. This is equivalent to the combined population of Connecticut, Nevada and Wyoming.

The figures show that the value of property destroyed by fires communicated through the roof was \$223,000,000.

Study of these and similar figures are leading to drastic changes in fire regulations in many cities of the country. Roof fires are among those considered easily preventable and steps are being taken with that end in view. Fire department records in many cities show that about forty per cent of all conflagrations have resulted from sparks and flaming embers carried by high winds to the roofs of nearby buildings. It is declared that if proper care had been exercised and fire-resistant roofing materials used when these buildings were erected most of the losses would have been averted.

In the early part of last year the

citizens of Indianapolis, Ind., began a campaign of fire prevention. Before the campaign was launched city officials joined with representatives of the Indianapolis Chamber of Commerce in gathering information. A fire prevention campaign had been conducted in Cincinnati, O., where it was found there had been 1,872 fires during 1920. Indianapolis had suffered 3,465 conflagrations the same year, notwithstanding that the Hoosier capital was then only half as large as Cincinnati and had approximately only one-half her property valuation. Cincinnati had only 56 roof fires that year while Indianapolis had 1,400. The net result of the Indianapolis campaign for fire-safe roofs was a reduction in 1921 of \$550,000 in losses and 350 in the number of fires. Of 1,199 fires in Indianapolis reported by Fire Chief O'Brien of that city in 1922, 850 were still directly chargeable to inflammable roofing. New York City and Chicago were the only cities leading Indianapolis in the number of fires.

"In the year 1911," says Fire Chief O'Brien, "Indianapolis had a fire loss of somewhat over \$300,000 and a total of less than 1,700 fire alarms. This fire loss increased by leaps and bounds year after year, until we reached a loss of more than \$1,800,000 in 1920, with a grand total of 3,465 fires." The increase in fires, he says, necessitated the constant enlargement of the fire department until the cost of maintenance reached \$1,000,000 a year. An ordinance has been introduced in the Indianapolis city council providing for the elimination of all wooden shingle roofs within eight years.

Fire department records in Wabash, Ind., show that of 30 fires in that city from January 1 to March 1 this year, 25 were due to wooden shingle roofs.

As in Indianapolis and Cincinnati, many old shingle roofs in Wabash are being covered or replaced with asphalt roofing.

Fire resistant shingles are usually manufactured of rag felt, thoroughly saturated with asphalt. On top of this is placed a heavy coating of harder asphalt which thoroughly waterproofs the shingle and in which is rolled mineral matter, such as crushed slate or feldspar, colored green, gray, red or brown as desired. This roofing is much less inflammable than the wooden shingle and its use is now permitted in restricted districts in which wooden shingles are prohibited by the fire regulations.

Asphalt shingles are extremely fire resistant and "non-combustible" and take the same rate of insurance as slate, metal and tile. Slate weighs from 650 to 800 pounds per 100 square feet while tile weighs between 950 and 1,200 pounds. The asphalt shingles average 220 pounds per 100 square feet, or about the same as the wooden shingles. Prepared roofing in rolls varies from 35 to 100 pounds. Asphalt shingles wear for 10 to 15 years.

Of the cities and towns in this country now requiring fire-resisting roofing within their fire limits practically all sections of the country are represented. Among them are Birmingham, Ala.; Jacksonville, Fla.; New Orleans, La.; Hoboken, N. J.; Paterson, N. J.; Perth Amboy, N. J.; Allentown, Pa.; Trenton, N. J.; Reading, Pa.; Easton, Pa.; Paris, Tex.; Montgomery, Ala.; Tampa, Fla.; Newark, N. J.; Jersey City, N. J.; Cambridge, Mass.; Chelsea, Mass.; Lawrence, Mass.; Fall River, Mass.; Somerville, Mass.; Salem, Mass.; Lynn, Mass.; Wilmington, Del.; Columbus, Ga.; Augusta, Ga.; Savannah, Ga.; Charleston, S. C.; Newton, Mass.; El Paso, Tex.; Lexington, Mass.; Norfolk, Va. and Portsmouth, Va.

MR. HUGH W. SKIDMORE, WELL-KNOWN CHICAGO ENGINEER, RECOMMENDS ASPHALTIC CONCRETE BASE AS PAVEMENT FOUNDATION

Mr. Hugh W. Skidmore, who is connected with the Chicago Paving Laboratory, and who has had much practical experience with various pavement types, has gone on record very strongly in favor of bituminous concrete foundations for pavement wearing surfaces. Mr. Skidmore's conclusions, drawn after observation and experiment, are of interest in view of the large funds available for highway and city paving, and the desire of each community to lay the type of pavement which will give the most value for the money expended.

Mr. Skidmore brings out the fact that many asphaltic concrete base and surface pavements have been laid under a variety of soil and drainage conditions, using either all gravel aggregate, various kinds of crushed material, or a combination of gravel and crushed stone. That these pavements, examined after from one to twenty years of service, showed no evidence of disintegration or cracking.

Impact tests are mentioned, which indicated that asphaltic concrete, considered as a slab or beam, provides very appreciable resistance to impact, the most destructive of traffic forces.

Mr. Skidmore summarizes the advantages of asphaltic concrete bases as follows:

1. Provides homogeneity of mass and positive bond between foundations and wearing surface, when bituminous top courses are employed.

2. Provides uniform contact with the subgrade, thus insuring the benefit structurally of all of the beam strength possessed by the foundation slab, and by the same token makes certain uniform distribution of load to the subgrade.

3. Because of the inherent flexibility of the material, the foundation slab

will at no time be called upon to act as an arch over weak subgrade areas, therefore, the possibility of the foundation rupturing, as is frequently the case with Portland cement-concrete, will be reduced to a minimum.

4. Provides freedom from cracks and upheavals.

5. Insures against the presence of moisture in the foundation structure, thus prolonging the life of the pavement.

6. May be easily repaired at minimum cost; the surface patch method being applicable in the case of very serious defects.

7. Provides decided economies in construction, as it disposes with the equipment and organization necessary to lay cement-concrete, thus affording the contractor the advantage of exclusive use of that portion of his ordinary equipment and labor organization which in actual operation has heretofore proven to be the most economical and thereby profitable.

8. Does away with the long period of time required for curing of the foundation, thus permitting the opening of completed work to traffic immediately, and providing a rapidity of turnover to the contractor not possible in the case of rigid foundations.

9. Permits the use of the same materials, except cement, as are employed in cement-concrete work.

10. Under similar conditions, using the same aggregate materials, bituminous concrete of equal thickness will usually be found to be cheaper than cement-concrete at present prices.

He concludes by pointing out that many contractors are ready to bid on this type of base as well as surface, and recommends to engineers that they specify black base.

CHAS. T. PHILLIPS

CONSULTING ENGINEER

SAN FRANCISCO

STREET LIGHTING EXPERT

(Continued from page 191)

gravity flow. The rest could be economically irrigated by pumping.

One of the outstanding features of this tremendously important project is, that throughout its entire length the canal will be on territory of the United States. This condition will be of immense benefit to the farmers in view of the fact that their irrigation water now comes to them from the Colorado River by way of Mexico—a situation fraught with difficulties and possible complications of the most serious nature.

As proposed by the United States Reclamation Service, the canal will have its intake at Laguna dam, a common diversion point on the Colorado River for the irrigation of lands located in California and Arizona. From Laguna dam the canal would extend southward to the international boundary line, and thence westward in the United States to a point about 10 miles west of Calexico, covering a total distance of about 75 miles.

The All-American canal would make possible the irrigation of about 200,000 acres of public land otherwise perpetually doomed to an arid state. With this situation in view, provision has been made in H. R. 11449 to give ex-service men preferential rights in the settlement of these lands.

(Continued on next page)

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The Nation's Garden—Imperial and Coachella Valleys

Convincing evidence of the outstanding importance of Imperial Valley, as one of the nation's foremost food production regions, is given in the United States census report for 1920. It is there revealed that in 1920 Imperial County exceeded eleven states in the value of its agricultural products.

The following table gives the figures:

New Hampshire.....	\$23,500,000
Vermont.....	47,009,600
Massachusetts.....	53,700,000
Rhode Island.....	4,240,000
Connecticut.....	44,492,385
Delaware.....	23,058,000
Wyoming.....	30,270,000
New Mexico.....	40,619,000
Arizona.....	42,481,000
Utah.....	58,061,000
Nevada.....	13,980,000
Imperial County.....	60,000,000

Among the products raised in large quantities in Imperial County are: Dates, grapefruit, strawberries, cotton, alfalfa, cantaloupes, asparagus, lettuce, tomatoes and peas.

In addition to the field crops produced in Imperial County during 1920, the live stock raised in the Valley that year carried a value of \$5,000,000.

The soil of Coachella Valley is of unsurpassed fertility, and with the water supply that would be made available through the construction of Boulder Canyon dam and the All-American canal, the irrigated area in that Valley would increase from the present total of about 10,000 acres to 100,000 acres.

The food products of these Valleys are of a peculiar value to the whole country, in that they are harvested and shipped to every corner of the United States during those seasons when these products, for the most part, cannot be secured from other sections.



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Cushioning Qualities of Roads

Perhaps no stretch of highway in the United States will be watched for its service qualities more than the new Phoenix-Tempe highway in Arizona but recently completed. There being two schools of highway engineers in the United States, one advocating the rigid pavement to withstand the impact shocks of heavy traffic and the other advocating a cushioning pavement to absorb the shocks, both schools will watch the behavior of the new road with great interest. The final three-mile stretch of the Phoenix highway was constructed of asphaltic concrete in both base and surface. It will furnish an interesting comparison with the Portland cement concrete road that adjoins it on the east. The asphaltic concrete pavement fits the theory of the engineers who advocate a resilient or shock absorbing pavement and the cement concrete meets the views of those who urge the rigid or resistant type. "Asphaltic concrete base and surface pavements," says the Arizona Republican, "have been in use in the Salt River Valley for eight years—principally in the city of Phoenix—and have demonstrated that the type is successful under local soil, climatic and traffic conditions. There has not been one failure in the several hundred thousand yards of this type laid in the valley."

"Recent tests conducted by the U. S. Bureau of Public Roads, show that impact and not dead load, is the most important factor to be considered in modern highway building. A heavily laden truck traveling at 12 to 15 miles per hour, delivers heavy blows to a pavement surface. Asphaltic concrete roads, because of the shock absorbing qualities given them by the asphalt binder, are able to withstand this constant pounding and will carry the heaviest loads without injury. This high resistance to impact forces, explains the success had with relatively thin pavements of the type under concentrated truck traffic—and accounts, in part, for the constantly increasing popularity of asphaltic concrete."

Colorado Leads in Equalization of Tax Burdens

Declaring that motor stage operators have no right to convert to their own profit the money paid by taxpayers for the construction and maintenance of highways, the Public Utilities Commission of Colorado has handed down a momentous decision which will form a precedent for decisions in similar cases by other state public utilities commissions.

The Colorado commission made an investigation of the transportation conditions in Eagle and Garfield Counties, through which the bus lines wish to operate, and found that in the two counties, although there were sixty-eight motor trucks operating as public carriers, they paid into the state treasury only \$819.27 per year for use of the state and county highways.

The Denver and Rio Grande Western Railroad, which these buses parallel, paid during the same period \$38,023.94 for the public roads which they do not use at all, and in addition, other taxes making the total in these two counties by the railroad company, \$153,896.94.

The portion of the decision which is of special import is that defining public convenience and necessity which is as follows:

"Public convenience and necessity, by which must be understood the convenience and necessity of the people at large as contradistinguished from the convenience and necessity of a very small number of persons who seek to derive a profit from the farmers' and home owners' investment in roads, never contemplated that the truck driver should destroy that, to the cost of construction of which he contributed little or nothing, or that he should reap where he has not sown. When the taxing laws of this state are so amended that the truck driver operating over state highways shall contribute his due proportion to the cost of construction and maintenance of our highways, then, and only then, can this commission regard his use, under proper conditions and restrictions, of a great and tremendously expensive public facility as of equal dignity and equal benefit to the people with the moderate use thereof by the ordinary taxpayer."

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Plans for State Highway Tree Planting

Ambitious plans for roadside tree planting and beautification are being perfected through co-operation between the California Highway Commission, County authorities, State Board of Forestry, and State University. Recently an inspection trip to San Diego County was made by Solon Williams, member of the State Board of Forestry and M. B. Pratt, State Forester, and a plan arranged with the county for the progressive planting of the State highway from the Orange county line south to the City of San Diego and from this point to Pine Valley on the San Diego-El Centro lateral, a total distance of about 80 miles. The San Diego County Supervisors have appropriated \$1,000 to start the work. The species of trees recommended vary according to soil and climatic conditions and include European Sycamores, Monterey Cypress, Desert Gum, Australian Beech, Blackwood Acacia, Flowering Eucalyptus and Live Oaks.

The Forestry Board and Highway Commission are working with the Fresno County Supervisors on a tree planting plan to cost about \$2,500.

Yolo County planting of 2,920 trees on State highways has been completed and the total cost was found to be 42 cents per tree, nursery stock furnished free by the Forestry Board at its nursery.

Since the active movement to plant roadside trees commenced, 62½ miles of State highway, distributed in six counties, has been planted

with approximately 8,000 trees. The maintenance cost runs from \$50.00 per mile per year in the valley sections to over \$300 per mile per year on desert sections. However, maintenance cost decreases with the age of the trees and in a few years become little or nothing with the exception of cost of occasional trimming. The trees have a value both in protection to the highways and beautification of the landscape, far beyond the probable cost of propagation.

Big Bear Valley Road

The U. S. Bureau of Public Roads in conjunction with the U. S. Forestry Service and the California Highway Commission will soon begin construction of the Big Creek cut-off on the Big Bear Valley road in San Bernardino County at an early date.

The Bureau of Public Roads has issued notice to contractors calling for proposals for construction to be opened June 22nd at the Mills Building in San Francisco. The project covers approximately ten miles from the existing route to the Bear Valley road and will effect a saving of fifteen miles in distance.

Tujunga Bridge

The California Highway Commission has accepted completion of a contract for bridge over the north branch of the Tujunga River in Los Angeles County contracted by Wm. Ledbetter.



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Seventeen States Have Gasoline Tax

In view of the clearly expressed sentiment from many sources and organizations relative to a tax on gasoline in Michigan, the proceeds to be devoted to highway maintenance and construction or kindred purposes, State Highway Commissioner Frank F. Rogers has been gathering all the information possible from the states in the Union which have thus far adopted such a measure. He has sent out a questionnaire to those states, seventeen in all, and the following gives some of the results of these inquiries:

STATE	Rate Per Gal.	Estimated Receipts for Year	No. of cars Registered	Average per Car
Arizona.....	1c	\$166,021.56	35,049	\$4.73
*Arkansas.....	1c	99,342.60	68,500	1.45
*Colorado.....	1c	627,965.31	135,600	4.63
*Connecticut.....	1c	666,983.10	141,008	4.73
Florida.....	1c	.....	.....	.....
Georgia.....	1c	720,000.00	131,976	5.45
Kentucky.....	1c	411,938.95	125,000	3.30
Louisiana.....	1c	400,000.00	80,000	5.00
Mississippi.....	1c	300,000.00	50,000	6.00
Montana.....	1c	220,737.93	61,000	3.63
New Mexico.....	1c	337,282.77	.....	.....
*No. Carolina.....	1c	660,000.00	153,000	4.31
*Oregon.....	2c	1,034,605.10	118,615	8.74
Pennsylvania.....	1c	2,504,672.76	.....	.....
So. Carolina.....	2c	.....	.....	.....
*So. Dakota.....	1c	652,125.36	120,592	5.40
Washington.....	1c	943,394.86	194,983	4.84

*Exemption allowed on gas used for other purposes than motor vehicles.

Road Association Urges Higher Taxes

The American Association of State Highway officials at their annual meeting at Omaha went on record in favor of higher taxes on motor vehicles:

It was resolved that the Association "urge upon all States the fairness and the necessity of collecting an adequate portion of the cost of highway programs from the users of motor vehicles. This fair share is not only the

cost of maintenance of modern highways, but includes also a fair proportion of the cost of new construction, because much of this latter cost is due to the necessity of adequately providing for motor traffic. It was recommended that appeals be made to the individual motorist for his support of a policy of providing for a fair distribution of the cost of highway improvement."

It was stated that in most of the States the owners of motor vehicles are paying an insufficient portion of the cost of the State's highway program, as compared to the portion of the cost raised by taxation on general property, despite the fact that the individual owner is always willing to pay his fair share of such cost.

California Improves the Surfaces of Its Roads

The California State Highway Department has begun a systematic widening of State highways in many parts of the state and has adopted the Maryland policy of surfacing some of its concrete roads with asphalt. California has also begun work on a considerable mileage of bituminous macadam. In Glenn County three and one-half miles of road will be of bituminous macadam, five inches thick and twenty feet wide. Five miles of concrete road in Placer County will be surfaced with three inches of asphalt. The same treatment will be accorded three miles between Fairfield and Vacaville in Solano County. In Sonoma County, three miles north and one and one-quarter miles south from the Petaluma city limits, a total distance of four and one-half miles of concrete road will be widened to twenty feet and surfaced with asphalt. Four and one-half miles of concrete road in Santa Clara County, near Carnadero, will also be surfaced with asphalt. Similar treatment will be given sixteen miles of concrete roads in Merced, Madera and Kern Counties.

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Orange County Contract

A contract for paving, repairs to base, and putting in concrete shoulders on the highway from Irvine to Tustin in Orange County was awarded on Tuesday by the California Highway Commission to George Oswald of Los Angeles. The contract covers work on 5.8 miles of highway. The contract price, not including materials which the State may furnish, is \$44,727.50 as against estimate prepared by the office of the State highway engineer of \$67,827.50.

Merced County Contract

Substantial progress toward carrying out the 1922 program of the California Highway Commission on the Pacheco Pass lateral highway was made when the following two contracts were awarded in Sacramento on Thursday:

One contract for grading 8.5 miles, and paving with Portland cement concrete for 5.1 miles between the Westerly Boundary and San Luis Creek was awarded by the California Highway Commission to Pacific Construction Co. of San Francisco. The contract price, not including materials which the State may furnish, is \$125,586.50.

The other contract was awarded to Blanco & Taylor of Vallejo, to pave with concrete the highway between San Luis Creek and Los Banos, a distance of 12.2 miles. The successful bid was \$216,550.50, not including materials which the State may furnish.

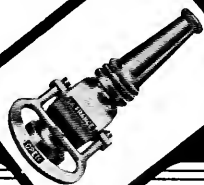
Sonoma County Contract

A contract for an asphalt concrete surface on the State highway from Willowbrook to one mile south of Petaluma was awarded on Tuesday by the California Highway Commission to A. G. Raisch of San Francisco. The contract calls for the surfacing of 4.29 miles of highway. The contract price, not including materials which the State furnishes, is \$25,885.20 against an estimate of the Engineering Department of the California Highway Commission of \$27,401.00.

San Francisco-Santa Cruz Skyline Boulevard

A delegation from the Santa Cruz Chamber of Commerce with the Hon. Wm. Jeter as chief spokesman, appeared before the California Highway Commission on June 15th in Sacramento. A carefully prepared brief, containing maps and other data, was presented to the Commission with arguments in favor of the San Lorenzo Valley routing from Saratoga Gap to Santa Cruz.

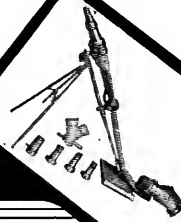
At a previous meeting delegates from the San Jose Chamber of Commerce, and other organizations of the Santa Clara Valley, Watsonville, Gilroy and other cities, headed by Judge J. R. Welch of San Jose, had presented data in support of a route from Saratoga Gap along the Castle Rock Ridge to Woodwardia on the Los Gatos-Santa Cruz Highway.

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(Continued from page 185)

which it is based, its operation should be closely followed by those who most intimately understand the reasons for its provisions. Thus, improvements and adjustments may from time to time be intelligently made. It is to furnish in exceptional cases a means for remedying possible injustices that, in some states, provision is made for a Board of Adjustment or Appeals.

It is obvious from the nature of the case that, even if a zoning ordinance were drawn with superhuman perfection, time and the natural growth of the community would show the need of modifications. The purpose of a zoning ordinance is not to stifle growth, but only to insure that instead of taking place sporadically and wastefully it shall go on in an orderly way, in response to generally recognized needs and with due notice to all concerned.

What Cities and Towns Have Accomplished By Zoning

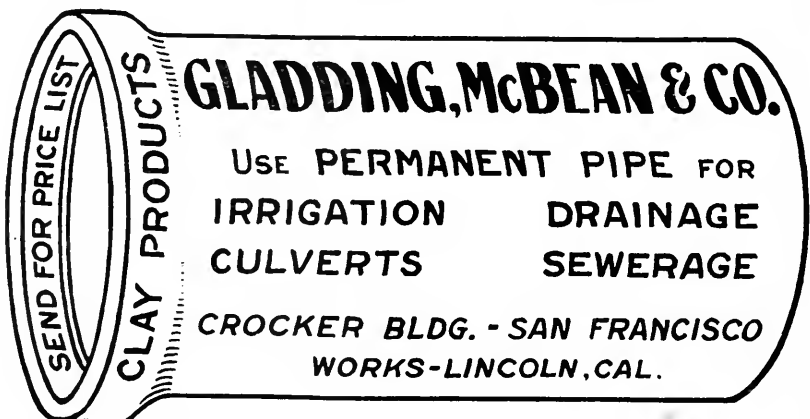
Undoubtedly the most convincing statement which could be made in regard to the value of zoning is that practically all the large cities of the United States now feel that it is impossible to continue to develop further without the adoption of a building zone plan. New York, St. Louis, Los Angeles, San Francisco, Milwaukee, Washington,

Newark, Rochester, Omaha, not to mention smaller cities such as East Orange, N. J., Berkeley, Calif., and Brockton, Mass., already have zoning ordinances in operation; while Chicago, Philadelphia, Detroit, Cleveland, Baltimore, Pittsburgh, Portland, Ore., and many others have zoning plans in progress. Moreover, it is not alone our larger cities which realize the necessity for timely regulation of the uses of property. A considerable number of the smaller towns, especially in California, Ohio, Illinois, New Jersey and New York, either have passed zoning ordinances or have them in an advanced stage of preparation.

In fact, on May 22, 1922, 66 municipalities in the United States were on record as having zoning ordinances already enacted, and 114 were reported to have zoning plans in progress.

Actual experience with zoning regulations has brought to light certain striking facts.

It is stated on reliable authority that the New York zoning regulations have prevented vast depreciation in many districts and effected savings in values amounting to millions of dollars in established sections. Certain districts have been rehabilitated as a direct result of the zoning ordinance. Another



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interesting result has been the production of a type of high building believed to be far better than the former elongated match-box type.

In an analysis of building permits issued in St. Louis in the first fourteen months under the zoning ordinance it was found that residences tended to follow the residence district and did not even attempt to seek locations in industrial or unrestricted areas. Except commercial buildings which were built partly in commercial and partly in industrial districts, the development of St. Louis is said to be fitting itself very closely to the zoning plan.

To avoid the common condition that industrial plants encounter of having to do business on a "residential basis," denied large-scale facilities in their vicinity on account of protests by residence owners, Alameda, Calif., among other cities, has established industrial zones in which no new permits to build residences will be granted. A leading municipal engineer is quoted as saying that the prohibition of residences in industrial zones is one of the most important protections to put in a zoning

ordinance. This method is being relied on to develop Hoboken, N. J., as a great industrial terminal.

In New Jersey it has been found that the unzoned suburban town is at a distinct disadvantage as compared with the community protected by a zoning ordinance. People are asking themselves why they should invest money in a home or lend money on a mortgage in an unprotected, unzoned locality. The zoned towns are actually absorbing the better grade of development. The result has been that builders, architects, and real estate owners in unzoned towns are persistently urging their local councils to adopt zoning, so that they may have as good a selling proposition to offer prospective clients as their competitors in the zoned towns.

Where To Get Information

Information concerning zoning progress in states and cities of the United States will be made available by the Division of Building and Housing of the Department of Commerce at Washington, D. C. A Selected Bibliography of Zoning is issued by the Division, and may be secured on application.

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School for Highway Inspectors

North Carolina, in carrying out its \$50,000,000 highway program, has introduced a departure that promises to set a swift pace for other states to follow. As a means of qualifying its inspectors for the inspection of bituminous paving the North Carolina State Highway Commission through its Division of Tests and Investigations has established a short course in bituminous laboratory and plant instruction. The course is necessarily a short one and consists of taking the men into the laboratory for about a week to learn the different tests of the materials used and to attend lectures by the supervisors of this type of construction. After the laboratory and lecture courses are over, the men are taken to the asphalt plant for instruction in the duties of the plant inspector and then on the road for instruction regarding the construction methods to be used.

The men for this work were secured mostly from the different districts into which the work of the State Highway Commission is divided. The number of men from each district is proportional to the amount of this class of construction to be carried on. This will allow the men to be located in the same district they came from and the only need for any change would be in the demand for emergency inspection from another part of the state. To allow the most efficient instruction to be given within the allotted time, it was found necessary to divide the student inspectors into two classes.

Use Wheel Chairs on Florida Roads

Occupants of wheel chairs are abandoning trains in Florida and have joined the hosts of bicyclists, pedestrians and motorists who undertake long journeys on the highways of the state. The asphalt roads of the peninsular state are in such excellent condition that occupants of wheel chairs are able to make their way over the roads with little or no fatigue. A man in a wheel chair recently covered 116 miles on the road between Jacksonville and Daytona without trouble. Another made the trip over the Dixie Highway from Jacksonville to Miami. The last named journey embraced 269 miles.

Two Million Dollar Road Completed in Arkansas

A \$2,000,000 road has just been completed in the Northern Road Improvement District of Arkansas, near Pine Bluff, including 75 miles of asphalt pavement and two-course gravel compaction, from Stuttgart and other points to the Jefferson county line. Motor trucks will now be able to pass over this highway with heavy loads of rice from the 90,000 acres of rice lands in that vicinity, affording cheaper and quicker access to the markets. Plans are now on foot for constructing a connecting road with Pine Bluff through Jefferson County.

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Arkansas-Louisiana Highway Finished

The Arkansas-Louisiana Highway, pronounced one of the finest roads in the south, is now completed, according to information received from the State Highway Department. The entire system is now open to traffic.

The road is 153 miles long. It cost approximately \$3,500,000 and was three years and six months in course of construction. A total of 114 miles of the road is asphalt surfaced while 11 miles are macadamized and 28 miles graveled.

In Arkansas the road traverses Lincoln, Drew, Desha, Chicot and Ashley Counties. One branch of the road extends from Grady through McGehee, Lake Village and Eudora to the Louisiana line. The western branch of the road connects at the Louisiana line with the road to Monroe.

Road Surfaces and Tire Cost

"In the State of California," says the Richland, Wash., Advocate, "there are some 600,000 automobiles licensed. It is safe to say that the average machine, including trucks and pleasure cars, expends \$100 each year for tires or an aggregate of \$60,000,000 annually in this one state.

"It is safe to say that the annual depreciation on these tires is 20 per cent greater on a rough or gritty surfaced highway than it would be if such surface were covered with a cushion of some bituminous substance which not only

would protect the foundation of the road but take the grind off from tires.

"In the one State of California this would mean a saving of \$12,000,000 annually to automobile users for tires alone not to mention the saving to taxpayers through the longer life which would result to their permanent highways.

"Ten years hence, after various states have experienced the costly experiment of leaving the surface of their permanent highways unprotected by a non-jarring surface, public sentiment will be unanimous for that character of construction regardless of material used for the road base."

Big Road Program in Tennessee

The State of Tennessee has inaugurated a new Federal aid road-building program involving the expenditure of \$8,000,000 for 281 miles of roads in 20 counties. While this program is being carried out a campaign is under way to increase the State Highway Fund by means of a gasoline tax and a bond issue. This movement has the support of the automobile clubs of the state and the Tennessee Good Roads Association. The highway department of the state recently let contracts for 138.86 miles of bituminous macadam roads in the vicinity of Altamont, Ashland City, Elizabeth, Erwin, Greenville, Huntington, Kingston and Dandridge, the cost of which will be \$4,884,500.

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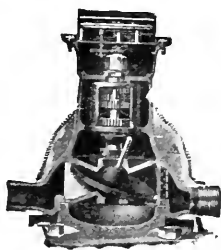


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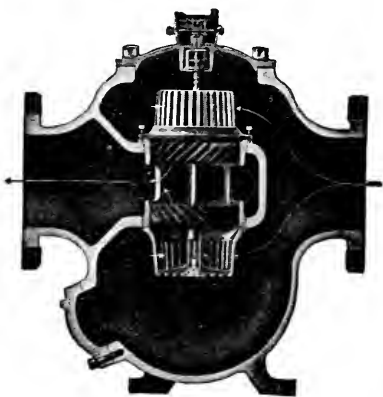
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OFFICIAL ORGAN OF THE LEAGUE OF CALIFORNIA MUNICIPALITIES



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LEADING ARTICLES IN THIS ISSUE

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July, 1922

NOTICE—Every city belonging to the League of California Municipalities is entitled to a copy
of this magazine for each of its officials without extra charge. If not received kindly notify the
Secretary.

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LEAGUE OF CALIFORNIA M U N I C I P A L I T I E S

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The League of California Municipalities maintains in connection with the Secretary's Office, a Bureau for furnishing city and town officials with information on municipal affairs, and loaning copies of new ordinances and specifications. Officials are urged to make a free use of this Bureau. Kindly send a self-addressed stamped envelope in all cases.

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HOW THE CITY MANAGER FORM OF GOVERNMENT IS WORKING OUT IN THE UNITED STATES

Realizing that many California cities are contemplating the framing of new charters and knowing the inclination to favor the city manager plan of government, we recently sent to all cities operating under that plan a letter of inquiry reading as follows:

Dear Sir:

We are about to publish an article on "Modern City Charters" and would like to know for publication what you consider the most important features of the city manager plan, also your ideas of school systems, election systems, civil service, etc.

Thanking you in advance for any favors, we are

Yours truly,

League of California Municipalities,

Per Wm. J. Locke,

Executive Secretary.

So many replies were received that lack of space prevents their publication in full, but the substance of each letter is set forth as follows:

6,913* La Grande, Oregon, April 12, 1922.

The secret of success and the growing demand for the City Manager Plan is that city business is further removed from politics.

It eliminates red tape and is more rapid in operation. It centralizes responsibility and control and is therefore more efficient and accessible.

It has developed expert administrators and eliminates the necessity of depending upon local amateurs.

The City Manager Plan is the most democratic form of municipal government ever devised and is most sensitive to public opinion.

O. A. Kratz,

City Manager.

60,840 Springfield, Ohio, April 12, 1922.

The City Manager Plan reduces waste for the reason that it places the affairs of the city on a business basis. We recommend it as being the only ideal and satisfactory form of city government.

The Springfield Chamber of Commerce.

By Floyd E. Kesler, Secretary.

12,095 McAlester, Oklahoma, April 12, 1922.

We have the managerial form of government, and it is working to the satisfaction of our people. If concentrated power is in the hands of bad men it is dangerous, yet all public and private business can be more economically managed when concentrated with good men and freed from political underwriting and favoritisms.

Boone Williams, Secretary
Chamber of Commerce.

**(Figures at left of names indicate population)*

10,995 El Dorado, Kansas, April 11, 1922.

In my judgment, the important features of the City Manager Plan of government are as follows:

First, that City Managers are employed solely upon the basis of administrative ability.

Second, that they are charged with and held responsible for the full administrative conduct of the city's business.

Third, that they are authorized by law to employ and discharge every official and employee of the city.

Fourth, that the City Commissioners, as individuals, have no authority to interfere with them in the conduct of their administrative duties.

J. E. Caton,
Former City Manager.

137,634 Grand Rapids, Mich., April 12, 1922.

Mr. Lee H. Pierce, Secretary of our Association of Commerce, has asked me to write you in regard to the Commission form of government.

It is practically like the Board of Directors of a corporation, and consequently places responsibility up to that Board. The Board looks to the General Manager for results.

There are seven Commissioners, and on account of its being a small body, work can be accomplished quickly and effectively. It is a much better form of government in my opinion than the old council of sixteen men and a Mayor, with no one responsible for the government of the city.

P. C. Fuller,
Mayor.

72,217 Wichita, Kansas, April 12, 1922.

I am pleased to acknowledge yours of April 1, and to advise that Wichita is under the Manager-Commission Plan of government, which in our opinion, is the finest system yet devised for cities of this class. Of course, you know of the new Cleveland plan, which is just an elaboration of the manager-commission plan. We are confident of their success in Cleveland.

Personally, I am unalterably opposed to civil service in municipal affairs. Contrary to the general idea, it makes for inefficiency and lack of harmony in any department to which it is applied. I do not know of a single city, at least of our class, where it can be truthfully said that civil service is a success.

In Wichita any man in any department can be summarily discharged by the city manager. This is a "club" which makes for efficiency and harmony. It is necessary, occasionally, to dismiss a policeman or fireman. In such cases in Wichita the man is suspended, the charges against him are heard by the city manager and the chief of the department, and if the city manager is convinced that the discharge of the individual is for the good of the service, he can make the discharge without consulting anyone. Of course, it may happen that a city would have a manager who did not possess good judgment, but I would infinitely rather trust any manager than a civil service commission. The civil service feature of the commission plan law in Iowa and other states is an iniquity. If you doubt this statement,

just investigate their experience at Sioux City, where I was secretary of the Chamber of Commerce for many years.

W. W. Holmes, Secretary
Chamber of Commerce.

10,060 San Angelo, Texas, April 13, 1922.

Some of the advantages of a City Manager Form of Government I would enumerate as follows: The centering of authority and responsibility. Where either is divided, it is greatly impaired, and particularly in the cases of responsibility. One of the useful opportunities present under this form is the chance to co-ordinate the various departments and cause them to co-operate with each other at a considerable saving to the city.

E. L. Wells, Jr.,
City Manager.

6,729 Bristol, Virginia, April 12, 1922.

In reply to your inquiry about the most important features of the City Manager Plan, my opinion is that the most important feature is the transferring of a playhouse into a business institution. We have no civil service in our charter; our schools are managed by a school board, and our elections come every four years, which we think is often enough.

S. G. Keller,
City Manager.

3,581 Montrose, Colorado, April 15, 1922.

This is in answer to yours of April 1st. In my judgment one of the most important features of the City Manager Plan is that it provides for an executive who may plan his work ahead of time just like a private individual in any other business should do and find ways and means to put the plan into operation so as to get desired results. Of course this will naturally involve the preparation of a budget which in itself is an immense advantage over the old-time manner of doing business.

The success of the City Manager form will depend just as in private business, on the ability of the manager to secure results. Qualifications for a manager are largely the same as for any other manager of a successful business in which the public is directly concerned. No amount of education or special training will suffice if the manager is lacking in tact, courtesy and general business ability. If to these things are added wide experience, success may be predicted.

We have had no occasion to select our employees according to the method of civil service.

J. E. McDaniel,
City Manager.

5,637 Tallahassee, Florida, April 14, 1922.

1st. The most important feature of the City Manager Plan should be absolute power in the hands of the city manager without interference from the commission in all departments except judicial.

2nd. A good commission elected at large and consisting of not to exceed five members (three is better) and paid nothing or such small salary that politicians will not be attracted.

J. W. Greer,
City Manager.

4,817 Mount Pleasant, Mich., April 14, 1922.

1. Making the manager responsible for all departments.

2. Letting the Commission have power to force improvements when they think it is necessary.

3. Civil service might work out in larger places, but I don't think it is advisable in the small places.

Carl H. Peterson,
City Manager.

3,289 Coronado, California, April 24, 1922.

In answer to your inquiry of April 1st regarding the Charter, the only suggestion that I would make would be to make the Charter as brief as possible. Don't let the Board of Freeholders attempt to solve all of the manager's problems in advance and don't let them tie the manager, hand and foot, or he will fail to function as a manager.

The civil service, improperly handled with too much red tape, is one of the best ways to handicap the manager.

G. F. Hyatt, City Manager.

39,604 San Jose, California, April 15, 1922.

The chief advantages of Charter and City Manager Plan have been the elimination of the old-time ward politics with its resultant favoritism and loose administration, and increasingly better political and moral tone to the community, a co-ordination of the several municipal departments, leading to greater economy and official efficiency, and other minor benefits incidental to all these.

Roscoe D. Wyatt, Secretary
Chamber of Commerce.

5,526 Anaheim, California, April 8, 1922.

I have your letter, requesting information as to how our Charter is working in Anaheim. Generally, would state that in our experience, there is perfect harmony on this question—that it works out well for all concerned. I can say that not one word of dissatisfaction has ever been uttered in my presence, and none of the members of the Board know anything different.

Malcom A. Fraser, Secretary
Chamber of Commerce.

12,871 Gastonia, North Carolina, April 27, 1922.

Replying to your inquiry of recent date, will say that our commission manager charter is working out splendidly. I am aware of no defects in our charter. The city manager has carried out an extensive and far-sighted program of public improvements without noticeable increase in taxation. Adoption of this system has proven a large step forward in the building of our town to a city.

Fred M. Allen, Executive Secretary,
Chamber of Commerce.

39,141 Dubuque, Iowa, May 1, 1922.

It seems to me that the most important features of the City Manager Plan are:

1. The opportunity for a city to secure through appointment, an experienced and capable administrative head. Such a man is rarely chosen through election.

2. The absolute separation of the elected legislative branch of the city government, from the appointed administrative branch. Such a system makes it impossible to pay personal political debts with the public money.

3. The opportunity to secure able and experienced men on the Council as directors. These men would not serve if a greater demand were made on their time.

4. Fixed responsibility through a single executive head of a city.

5. Greater opportunity for economy in administration, co-ordination of effort and harmony of purpose through a single executive head.

O. E. Carr,
City Manager.

23,594 Middletown, Ohio, May 2, 1922.

I consider the most important features of the City Manager Plan, first, a scheme of election which will come nearest to the selection of the men best qualified to serve the people; and, second, a provision for the appointment of a City Manager.

In regard to the civil service laws, I see no excuse at all for the Civil Service Commission. The manager should be held responsible for all appointments, and if he makes mistakes intentionally or is dumb and makes them unintentionally, he should be fired.

Kenyon Riddle,
City Manager.

7,224 Grand Haven, Michigan, May 5, 1922.

I do not believe in a civil service clause in a charter. If the city manager is of the right business caliber and is supported by the commission, he will give every employee his just due and secure efficient service for the city and will have his own department heads as civil service board.

Wm. H. Loutit,
Mayor.

7,224 Grand Haven, Michigan, May 5, 1922.

In the beginning the important appointive offices were made by the Mayor and the salaries were fixed by the charter. This was changed so that the appointments of city manager, city clerk and city attorney are now made by the Council and the respective salaries are set by this same group. This is practically the only major change that has been made.

The main advantages accruing to the city of Grand Haven, due to the adoption of this charter are: First, the entire administration is directed by the City Manager who is dependent upon the council for the general policies but not for details. Second, purchasing for the entire city organization is made by the City Manager.

I am certain that the policy of having the Mayor elected by the people rather than by the council itself is a good provision, even though he has but the vote of a councilman.

Seven years of experience with the City Manager form of government in Grand Haven has worked some wonderful changes here and I am sure the citizens in general are well satisfied with it.

Paul R. Taylor,
City Manager.

2,463 Fort Myers, Florida, May 3, 1922.

The new plan is a decided advancement over the old, and the Commissioners, to function at all, have to go in the line of progress, so we have a better city government than the old.

Florida is rapidly falling in line with the new idea of municipal government and the great good we have received is, that there is no talk of going back to the old form of government.

L. A. Whitney, Secretary,
Chamber of Commerce.

115,777 Norfolk, Virginia, May 5, 1922.

The City Manager form of government was established in Norfolk effective September 1, 1918, and since that time the city has, in our opinion, progressed more rapidly and satisfactorily than at any time during its history.

The outstanding feature of the Commission Manager form of government is the centralization of executive authority; the minimizing of delays in the disposition of all matters of progressive or other character.

W. A. Cox, Secretary,
Chamber of Commerce.

21,719 Durham, North Carolina, May 6, 1922.

In my opinion the most important features of the city manager plan are the separation of legislative and administrative duties together with the appointment of a trained executive by the legislative body is essential.

To be held accountable for carrying out the details of administration the manager should be given considerable latitude in the selection and dismissal of all subordinates. Interference on the part of the legislative branch should be rigidly controlled. The manager plan in general provides accordingly.

As respects election systems, I am convinced that a method of preferential or proportional representation is essential. The ward method has in my experience been a failure.

R. W. Rigsby,
City Manager.

12,117 Morgantown, W. Va., April 17, 1922.

This system has been in vogue here for less than a year and while we feel that very substantial progress has been made in the way of putting the city's affairs on more solid business basis and planning for the future, in more comprehensive manner than has heretofore been possible, yet the net results up to this time, would probably not be very enlightening and we would prefer to undertake to furnish you the data requested after another year or two.


Chas. F. Sutherland,
City Manager.

2,480 Westerville, Ohio, April 19, 1922.

The people here are satisfied with the present form of government and are beginning to realize that they are getting more for their money than under the old plan, and a good City Manager can make the city government worth the price we have been accustomed to paying and also earn a fair salary for himself.

If we have saved money, conserved health, contributed to the growth and well being of our community in large contrast to previous governments, it is not due so much to our

personal ability as it is to a form of government, the principles of which are easy in operation and the responsibilities of which are definitely fixed, thereby making success a material consequence.

Richard Biehl, 
City Manager.

27,869 Clarksburg, W. Vir., April 16, 1922.

One year ago Clarksburg adopted the City Manager plan and we feel that it has functioned successfully, except that the election of Councilmen by wards does not eliminate the partisan feeling which we hoped to eliminate when the Charter was changed.

Mr. Harrison G. Otis, past President of the City Managers' Association, is City Manager in Clarksburg, and I am very glad to say for him that he has made a creditable showing in spite of the fact that politics have hindered him in some of his activities.

G. D. Theelen, Secretary,
Chamber of Commerce.

152,559 Dayton, Ohio, April 17, 1922.

The City Manager form of government covered by this charter has been in operation since 1914 with thorough success. Both business people and labor interests are wholeheartedly in favor of this form of government and would not care to return to the old federal plan.

The outstanding features of the City Manager form of government are that it is, first, non-partisan, thereby retaining an equal interest on the part of all citizens in the government at all times; secondly, the administrator of affairs, the City Manager, is chosen because of his executive ability and conducts the affairs of the city accordingly.

Edward McColgin, Mgr.
Chamber of Commerce.

5,032 Lake City, Florida, April 15, 1922.

Your letter of April 1st received and in reply wish to advise that our present City Charter embodying the commission manager form of government has been in existence only a short while and an opinion rendered at this time would not be very comprehensive. Apparently, however, the commission manager form as worked out here is giving satisfaction and in some respects is economy over our old Mayor-Council City Charter.

R. J. Blank, Secretary,
Chamber of Commerce.

54,322 Wheeling, W. Va., April 17, 1922.

Replying to your favor of April 1st, would say that the most important feature of the City Manager Plan as developed by our experience, is the fact that it centralizes authority and fixes responsibility.

C. H. Dowler,
City Manager.

39,141 Dubuque, Iowa, April 15, 1922.

In my opinion, the City Manager form of government gives a greater opportunity for the right kind of men to accomplish their wishes when they are elected to a Council.

I used to say that "any City Government was only as good as the men who were in

office," but I have changed my opinion a little and I believe that it should be stated "that any City Government is as good as it gives opportunity to the right kind of citizens to accomplish results for their city and at the same time safeguard all the people."

D. B. Cassat, Secretary,
Chamber of Commerce.

3,003 Tifton, Georgia, April 13, 1922.

The City of Tifton has been working under the City Manager form of government for over a year. We find that there is no friction and are delighted with the change from the old Mayor and Alderman form under which we operated in the past for a number of years.

Our people are contented, and Tifton is forging forward regardless of the existing depression of the farmers.

W. E. Algee, Secretary,
Board of Trade.

9,690 Manistee, Michigan, April 14, 1922.

This city was one of the first in the country to adopt the Commission-Manager Plan which went into effect here in 1914. An effort to return to the old aldermanic plan was made by certain local interests last spring, but at a special election held March 1st, the people of Manistee, by a vote of 1,710 to 1,195 decided to retain the present plan.

As to the relative economics of the two plans, aldermanic vs. commission-manager, there is apparently no argument. In spite of rising costs and in spite of the fact that the city has lost nearly \$10,000 annual liquor license fees, due to the advent of prohibition, our city tax is approximately the same to-day as it was during the last two or three years under the aldermanic form, the increase being only three or four thousand dollars.

J. C. Beukema, Secretary,
Board of Commerce.

Maryville, Tenn., April 13, 1922.

The charter of Maryville provides for a commission form of government, which does very well so far as it goes. It is our opinion, however, that a City Manager is needed to provide the best form of Municipal Government, and a very careful study of the subject for several years has convinced the writer that there is economy in the operation and general satisfaction to the people at large in the City Manager form of government.

We have a very striking demonstration of the success of this form in our neighboring city, Alcoa*, where a competent City Manager is in charge.

W. T. Corwith, Secretary,
Chamber of Commerce.

*Population 3,358

9,110 Xenia, Ohio, April 25, 1922.

In reply to your recent letter relative to the City Manager form of government, I wish to advise you that I am sending you under separate cover, a copy of our City Charter which is working out splendidly here.

In this city we have no jurisdiction over the school system, and in my opinion Civil Service is a bad thing because too many times it leaves incompetent persons in office.

T. H. Zell, City Auditor.

2,007 New Smyrna, Florida, April 24, 1922.

The most important feature of the City Manager plan in my opinion, is the separation of administrative and legislative functions of government. This seems to vary in degree with almost every charter. The next most important feature is centralization of control and authority.

P. P. Pilcher, City Manager.

14,181 Ardmore, Oklahoma, April 26, 1922.

As to the most important features of the City Managerial Plan, I think I can state that it would be the centralizing authority in one head, for the purpose of obtaining the earliest possible co-ordination of all departments of the city, to accomplish a desired result.

As you know, under the old Aldermanic Charter, at times, the different departments of the city were as far apart as governments of different political subdivisions. By centralizing all departments, they work in closer harmony with the one purpose in view, for the betterment of the entire city.

Kirk Dyer,
City Manager.

8,659 West Palm Beach, Florida, April 21, 1922.

For your information we are enclosing a copy of the City Charter of West Palm Beach, which was adopted last fall and has been in operation only a few months, consequently it is impossible for us to come to any definite conclusions in regard to a number of items, as provided in this charter, except that we have found the charter one that is working out very well, and the coming year or so will determine its real value.

H. E. Robinson, Secretary,
Chamber of Commerce.

16,985 Auburn, Maine, April, 1922.

Our City Charter is working well. Its greatest advantages are the provision for a City Manager with a great deal of appointive power, and the centralization of purchasing.

One of its principal difficulties is the provision for a Mayor, which was a compromise with the old Federal plan of government. Under our Charter the Mayor is elected by the people at large, and sometimes in the past he has assumed to speak for the people.

Another disadvantage is the retention of ward lines, which makes a Councilman represent a section rather than the city at large.

The election system provided in the Charter seems to work fairly well, although I believe proportional representation would be a great advance.

Earl S. Lewis, Secretary,
Chamber of Commerce.

13,191 Bluefield, W. Va., April 18, 1922.

Although there has always been some opposition to this governmental plan among the laboring classes, and there still is in fact, a great majority of substantial citizens feel that for the first time in our history we have a real city government.

Under the direction of our efficient City Manager, C. E. Ridley, there has been brought

to a successful issue the question of adequate water supply, which has been dragging along interminably. The city is now also instituting a system of garbage collection which is an innovation in Bluefield.

In brief, I would say that our new charter has resulted in bringing complete order out of governmental chaos. Politics have been completely eliminated with our non-partisan system and the city is making real strides in every direction.

As to the defects of our charter the greatest criticism that I would make is that the directors should be elected at large instead of from districts as they are at present.

Carroll R. Woods, Secretary-Manager,
Chamber of Commerce.

12,085 Tyler, Texas, April 19, 1922.

We think the City Manager plan gives us a more efficient city government; we believe, however, that there is too much duplication in office holders in reference to our city, county and state.

A. L. Burge, Manager,
Chamber of Commerce.

8,240 Griffin, Georgia, April 15, 1922.

Our plan is for three commissioners elected from the city at large, who select the manager and supervise his activities, he does everything else. And under our plan there has never been a complaint.

We are not strong on the question of Civil Service, from a hard and fast standpoint. It causes friction and interferes with efficiency, furnishes a bone of contention and savors too much of old politics. I believe Civil Service as we have always understood it—to keep a man in office anyhow—has no place in modern city government.

W. B. Royster, Sec.-Mgr.
Board of Trade.

27,292 East Cleveland, Ohio, April 14, 1922.

I consider the most important features of the City Manager plan to be the rights and authority vested in the City Manager. That is, I think the charter should provide that the City Manager will be unhampered in the selection of the heads of departments and other city officials. I think the City Manager should have the right to appoint all heads of departments with the possible exception of the Director of Finance. If he is allowed to do this, he will gather around him a group of employees who are faithful and loyal, both to the manager and to the municipal corporation.

Harmony should be the inherent characteristic of the City Manager organization, but cannot be the inherent characteristic unless the City Manager has the appointing power.

I think Civil Service should be abolished under the City Manager plan, to the same degree that politics has been abolished. The worst feature of Civil Service is that it is practically impossible to get rid of an inefficient employee. You cannot expect efficient government with inefficient employees.

C. M. Osborn,
City Manager.

5,692 Kingsport, Tennessee, April 14, 1922.

In reply to yours of April 1st, will state there are so many outstanding features of the City Manager government that it is hard to state just which is the most important feature.

In our town, and as it is in all towns, I think one of the most important things is the fact that politics are absolutely eliminated and to my judgment, this has been a curse to all City Governments.

As to Civil Service, I am not much in favor of it myself, as a man holds his position on merit and if you have the right kind of organization, any man that produces the goods will always find himself with a job.

L. H. Kidd,
City Manager.

13,252 Rome, Georgia, April 13, 1922.

Replying to your letter of April 1st, we are very well pleased with the new charter under which we are working and after a two-year test, do believe that it should have some changes. The words "local engineer" are used in this charter as being the only party eligible for City Manager. I believe the word "engineer" should be left out entirely, as it does not require an engineer but only a person with good business ability.

H. H. Shackleton, President,
Chamber of Commerce.

22,897 Sandusky, Ohio, April 13, 1922.

We have found the Commission-Manager form of government very satisfactory and that administration of city affairs is being carried on in a businesslike manner because of the elimination of politics and the fact that the City Manager holds his office on merit and not party support. His services can be terminated at any time that it is deemed advisable by the Commission.

I. E. Windisch, Acting Manager,
Chamber of Commerce.

2,912 Redding, California, April 14, 1922.

The one big feature of the City Manager Plan seems to me to be the uniting of responsibility with authority to act and placing the two in the hands of a single individual whose duty is and whose whole ambition should be to get results.

E. A. Rolison,
City Manager.

31,002 Petersburg, Virginia, April 18, 1922.

I consider the most important feature of the City Manager Plan the definite responsibility of the City Manager to the elected council, which in its turn has no executive or administrative function whatever. In other words, I believe that the people at the polls in most instances will be successful in electing legislative representatives who will reflect the views of the community on matters of policy. I do not believe that they often can be successful in selecting at the polls men qualified to carry out these policies in administrative action, nor do I believe that an effective executive administration can be had except under the direction of one person.

(Continued on page 242)

THE LEAGUE OF CALIFORNIA MUNICIPALITIES AND ITS WORK

By WM. J. LOCKE

Before the Municipal League of Georgia, at Atlanta, Georgia, June 29, 1922.

"Service to Man is the Highest Worship of God."

Just four and twenty years ago one bleak December day a handful of men assembled at San Francisco and started the organization which has since proved to be such a great factor in the development of California's cities and towns. At that time the number of incorporated cities in the state was about one hundred, being less than half as many as there are today.

It was a time when municipal government throughout the nation was in a deplorable condition, graft and corruption being prevalent in all the larger cities of the country. Bryce in his "American Commonwealth" had referred to the situation as "our one conspicuous failure," and a general cry had been raised throughout the land calling for reform in the government of our cities. National organizations were created to study the problem and try to find a remedy but they met with only partial success.

This was the situation, California being no exception, when it was suggested to the mayor of a small town near San Francisco that a state organization of the cities might bring about some improvement at least so far as California was concerned. The suggestion appealed to him favorably and led to the calling of the meeting in San Francisco which resulted in the formation of the League of California Municipalities, twenty-nine officials, representing thirteen cities, participating in the first conference.

The growth and influence of the organization increased from the outset. Since that first meeting in San Francisco twenty-four years ago, annual conventions of city officials have been held every year in some city of the state, alternating between the north and the south, or the interior and the coast, while the League has increased in membership from thirteen to two hundred and forty cities and towns.

Prior to the formation of the League, no records were kept of municipal work or improvements, each city or town being completely in the dark as to what the others were doing or how they were doing it. There was no stimulus to do very much and many of them simply drifted along in an indifferent sort of way, without any definite plans or ideas for their future development.

Following the organization of the League all this was changed. Among other things, an official organ was published and distributed to the city officials monthly, containing accounts of the various municipal improvements going on throughout the state. These stories of what some of the cities were doing stirred the others to action. New life was injected into the municipalities and a demand was created for street improvements, better sanitation, parks, playgrounds and other public betterments. From time to time comparative tables were published showing the work under way and calling special attention to the cities and towns which seemed to

be making the greatest progress. At the annual meetings it became the practice to call upon the representatives present to tell what achievements their respective municipalities had made during the past year. These accounts served as an additional stimulus to further improvements, natural pride prompting the desire to keep up with the pace.

However, the principal value of the League lies in the fact that it serves as a clearing house of ideas and experiences, where officials may report the results of their tests or experiments and enable others to profit by their example.

In the matter of discussions, it is the custom to take up the various subjects in a practical way rather than follow the academic method. For example, instead of discussing municipal ownership as a question of economics, short talks are invited on experiences in the construction and management of municipal water works or lighting systems. In this way the successful operation of public utilities is emphasized. In addition to the benefits which are derived from these discussions much good is accomplished by the private talks between delegates. During recess and at meal times, in fact whenever any two or more officials get together, the discussions are continued and extended. Everybody talks shop and the amount of interest and devotion shown by the delegates is truly remarkable.

In order to secure the greatest amount of efficiency from the meetings, it has been found desirable to divide some of the daily sessions so that, for example, the city attorneys will meet in one hall, the clerks, auditors and assessors in another, while the engineers, councilmen and street superintendents occupy still another. The program is so arranged that at these divided sessions the subjects taken up are matters of particular interest to the respective departments only. For instance, the clerks, auditors

and assessors will take up such matters as uniform accounting or equitable assessing, while the attorneys debate legal problems, and the street superintendents discuss such matters as street paving or sewer systems. At the general meetings all the delegates assemble as one body and discuss such questions as are of more general interest. The state, county and municipal health officers of California constitute one of the departments of the League and meet in annual conference at the same time and place, frequently assembling in joint session when some phase of municipal sanitation is up for consideration. All the principal discussions are recorded by stenographic reporters and subsequently published and given statewide distribution among the officials.

Ten years ago another feature was added to the annual meetings in the way of an exposition of the various kinds of machinery and supplies used in municipal work. By this means officials are afforded an opportunity of witnessing practical demonstrations of the latest machinery and devices used in the construction of public improvements. This feature is regarded as having the same relative value to city officials as an exhibition of farm machinery has to farmers. It enables them to make comparisons which would be otherwise impossible. This year the program will include demonstrations of model street and road building, the actual work being performed by the various machinery and paving exhibitors, under the direction of competent municipal engineers. Each step will be explained and the proper methods of construction demonstrated.

During the early years of the League the annual conventions lasted about three days, but now they consume nearly a week. However, great pains are taken to make that week as profitable, in an educational way, as possible. It may be likened to a university "short

course" in the administration of municipal government, instruction being furnished by experts, as those who lecture are chosen with a view of obtaining men "who know what they are talking about." It would indeed be very embarrassing for the speaker if he did not, as the quizzing, which invariably follows, would soon demonstrate his incapacity.

At its very inception the League fixed a schedule of annual dues which would provide sufficient means to pay a secretary and maintain a headquarters. These dues range from \$10.00 to \$60.00 a year, according to population, and now provide an annual revenue of approximately \$4,500. New members are coming in constantly and the fact that a city rarely surrenders its membership is proof that the organization has justified its existence.

It was agreed at the outset that, in order to maintain continuous interest in the work, an official organ would be necessary, and before the end of the first year the monthly publication heretofore mentioned was started. It has been issued continuously ever since, its pages being devoted exclusively to municipal problems and doings. It is sent free each month to the officials of those cities which belong to the organization, thus providing additional means for disseminating knowledge relative to municipal affairs, quite as valuable, in fact, as the annual meetings. Besides publishing convention proceedings, additional articles are contributed by city officials or other reputable authorities. A brief account of what the different cities and towns are doing in the way of improvements is one of its chief attractions.

The League also maintains a free bureau of information, and city officials are urged to make liberal use of this department. Replies to queries are invariably sent without delay unless the matter is one requiring special investigation. This service has proved to be of the utmost value, especially to the

smaller municipalities. Another service highly esteemed by municipalities is the collection and loaning of municipal ordinances. Copies of the new ordinances which are passed by municipalities throughout the state are collected and filed at headquarters, from whence they are loaned to city attorneys or other officials upon application. In addition, model specifications, legal opinions, pamphlets and other literature relating to municipal affairs may be secured from headquarters upon request.

The League has also done considerable work through its committees in the drafting of model ordinances on various subjects of general interest, such as building construction, fire protection and the assessment, levy and collection of taxes.

Another valuable service performed by the League for its members is in connection with new legislation. At every session of the legislature representatives of the organization are in constant attendance. As a result much beneficent legislation has been secured for the cities and towns while, on the other hand, many pernicious bills have been defeated. The main object in the matter of legislation has been to secure more power for the municipalities and oppose threatened legislation violating the principles of home rule.

Of recent years the League has devoted a great deal of attention to the question of hydro-electric power development, the legislative committee taking a prominent part in the drafting of California's Water and Power Act (so-called), which has been placed on the ballot under the initiative to be voted on at the November election. At the last meeting which was held in Santa Monica, with an attendance of 700 city officials, this measure received the unanimous endorsement of the convention.

Almost from its inception the League has recognized the importance of securing a uniform system of accounting. The

first plan was to try and obtain it by voluntary action but this method did not meet with much success. Attempts to have the necessary legislation enacted were likewise unsuccessful, whereupon it was finally decided to try to have a law passed which would provide for a uniform system of reporting, realizing that a uniform system of accounting would follow as a natural sequence. There was no difficulty in getting the legislature to pass a measure for uniform reporting and since that time the reports have been collected and published annually by the state controller. They are regarded as the most complete documents of their kind issued in this country. In order that our municipalities may go ahead upon a sound basis it is necessary that their officials be enabled to make comparisons of costs and expenditures, and such comparisons are impossible without a system of uniform accounting and reporting.

On several occasions the League has undertaken the defense of its members in law suits, where the question involved was one in which all municipalities were concerned. In one case a New Jersey corporation sought to collect royalties on an alleged patent for applying crude oil to lay the dust in streets. The League contested the company's claims and raised a defense fund of \$5,000.00, resulting after a year's contest in a judgment for the cities. Undertakings such as these prove conclusively the value of statewide municipal organizations.

During the annual conventions it has always been the practice to discourage sight-seeing trips, elaborate banquets and such like entertainments, as the expenses of the delegates are invariably paid by their respective cities, and the League does not wish it to be said that their officials are enjoying a junketing trip at the expense of the taxpayers.

Another important undertaking about to be launched under the auspices of the League is the giving of correspondence

courses of instruction for city officials, particularly those officials whose duties are of an administrative character and require special training or experience. At the outset it is proposed that the courses shall cover the offices of city clerk, city attorney, street superintendent and health officer, and it is designed that they shall be open to the general public as well as to aspirants and present incumbents. The idea has met with general favor and great expectations are held out for its future possibilities, many people believing that it would eventually bring about more intelligent administration and greater efficiency in city government.

It has also been planned to enlarge the scope of the League by taking in as associate members, cities of the other coast states adjacent to California, and the constitution of the League has been amended so that this may be done. Under the plan proposed the associate member-cities will receive the League's official organ, "Pacific Municipalities," for their officials and have free use of the information bureau; also the right to send delegates to the annual conventions. It is recognized that such an association of Pacific Coast cities is highly desirable and likely to result in greater uniformity of laws.

It is universally conceded that the League of California Municipalities has been a tremendous stimulus to the growth and development of our cities, and it is the sincere wish of all good citizens that its power and influence may continue to grow as time goes on. Let us hope that the success which it has achieved in the past may serve as an inspiration for future endeavor not only in California but throughout the union, so that the time will come and come soon when municipal government in this great republic shall be regarded as a conspicuous success and a source of patriotic pride.

BOULDER CANYON DAM

Project Means New Empire for Southern California

By HIRAM W. JOHNSON

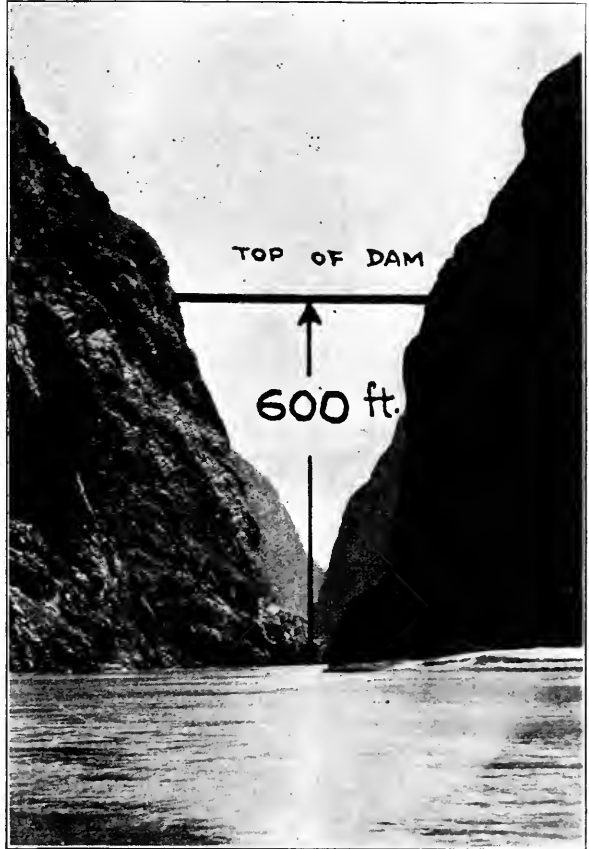
United States Senator from California

The development of the Colorado river basin proposed in the legislation inaugurated by Representative Phil D. Swing, in which I have been very happy to cooperate, constitutes the greatest constructive project before the American people today. Within it there is greater promise of material prosperity for California than in any pending legislation, or in any event of recent years.

The Colorado River is 1,750 miles long, for half its length 8,000 feet above sea level. Its course runs through a mountainous country where nature has created narrow, high-walled gorges, especially adapted as sites for great dams. It is demonstrated now that its waters can be controlled, and can be utilized and developed, and be made of inestimable service to this and all succeeding generations. The pending legislation is the mature judgment of the experts and engineers, both federal and state, for this control, development and use.

Comparison Shows Magnitude

The magnitude of the proposed Boulder canyon dam provided for by this bill may be appreciated by comparison with present existing works of like character. The highest dams now in existence stand from 250 to 350 feet above bedrock, while the Boulder canyon dam will consist of a solid concrete



BOULDER CANYON DAM SITE

structure towering 600 feet above its foundations and braced between solid rock walls.

The greatest reservoirs in the world are the Assuan of Egypt, with 1,865,000 acre feet capacity; the Elephant Butte of New Mexico and our reclamation service with 2,368,000, and the Gatun lake on the Panama canal with 4,410,000, while the proposed Boulder canyon storage will have not less than 24,000,000 acre feet.

The hydro-electric power which will be generated from the contemplated new work will equal 600,000 horsepower continuously, with a plant of 900,000 horsepower capacity—a capacity equal to the total capacity of all the Niagara plants now operating and six times greater than the contemplated Muscel Shoals project. Careful estimates demonstrate that the Boulder canyon project will save 23,000,000 barrels of oil yearly.

The project is the main feature of a comprehensive unified plan to develop all the power of the whole Colorado river and 6,000,000 continuous horsepower, equivalent to one-half the total present rate of consumption of fuel oil in this country.

Oil Supply Dwindling

The United States geological survey warns us that the oil supply of America, at the present rate of consumption, may be completely exhausted in 20

years. California's industries, with this exhaustion, will face disaster. This disaster will be averted by the development of the power of the Colorado river under the pending measure and unlimited additional cheap power for new industries and factories will be at hand.

The Colorado river drains an area of 244,000 square miles and is fed by the heavy rains of Wyoming, Colorado and Utah. The summer suns melt these snows with great rapidity, and often there are resultant floods, menacing life and property. These floods may be conserved. The bill provides for this conservation and by it the great Imperial valley and the Palo Verde valley will no longer live under an impending threat of destruction.

The federal government has expended \$116,000,000 in flood protection work upon the Mississippi, not a dollar of which will ever return to the treasury,



BOULDER CANYON LOOKING UP STREAM

and the work is not yet completed. On the Colorado river, because of its peculiar physical characteristics, the flood problem can be solved for all time by the construction of an immense storage dam at Boulder canyon at a cost of less than half of that which has been spent on the Mississippi, and every dollar expended can be returned to the United States government through the sale of power.

Chance for Ex-Service Men

The waters stored can be utilized for the reclamation of 1,000,000 acres of land. More than 100,000 ex-service men and women already have applied to Secretary Fall for farms. Here is the opportunity at hand. The government, by this plan, can redeem its promises to the men who have fought and won the late war, and also, in redeeming its promises, increase the wealth of the nation.

In a masterly report Secretary Fall and Director Davis have outlined what this project means, and their report I have published as Senate Document No. 148. The Secretary of the Interior has indorsed the pending legislation and the Secretary of Commerce recently appeared before the House Committee and gave his unqualified approval. A notable delegation, representing many of the cities and districts of Southern

California, journeyed to Washington and enthusiastically indorsed the measure in their testimony before the Congressional Committee.

Development of Southwest

I can not speak too highly of the ability, vision and wise statesmanship of Congressman Swing in presenting this measure. He has performed a service to Southern California which can not be over-estimated. I am very proud to have been able to present the bill in the Senate and to act in conjunction with the Congressman.

The bill means the development of the great Southwest, the transformation of deserts into fertile, profitable and prosperous territory. It means the opening of new mines and the working of old ones with greater intensity. It means manufacturing plants and factories in all of the cities of Southern California, with work for thousands and tens of thousands of men and women. It means the control and the elimination of ever threatening disaster by floods of the Colorado river. It means the conservation of our nation's oil supply and cheap power for all contiguous territory.

It means, in short, a marvelous, populous, prosperous empire in Southern California.



CORONADO
WISHES TO EXTEND TO THE
LEAGUE OF CALIFORNIA MUNICIPALITIES
AN INVITATION TO HOLD THE
CONVENTION OF 1923 IN THEIR CITY

Congressional Record Tells Story of Success of Ontario Hydro-Electric System

The fact that the publicly owned hydro-electric system of Ontario is selling power at one-half the price charged across the American boundary has been written into the record of the official proceedings of Congress. It has also been recorded that the Canadian cheap power is drawing American capital across the border. These facts were set forth in the debate on the cyanide item of the tariff bill. The following is taken from the Congressional Record of May 29th: Page 8531—

Mr. Cummins—Why is it that manufacturers upon the American side must pay more for their power than the manufacturers upon the Canadian side?

Mr. McCumber—I will read from the testimony which I have here, if the Senator will allow me to do so. This is the statement of Mr. Rigney, who represents the Roessler & Hasslacher Chemical Co. It is not denied, and those who represent the other side admit, they get their power cheaper. This is what Mr. Rigney says:

“Our Canadian competitors just across the Niagara River get their hydro-electric power at about one-half the price we are obliged to pay on the New York side. Canadian power companies enjoy what is practically a Government subsidy, in that they are not obliged to pay either Dominion or local taxes. Hydro-electric energy is a very important factor in the production of cyanide, and is a large element in its production cost.”

They have investigated this question, and, while there was a claim to the contrary, I think those representing the Canadian side of the industry ad-

mitted that there was a difference of about $1\frac{1}{4}$ cents a pound in their favor. However, we gave only the equivalent of 1 per cent ad valorem.

Mr. Cummins—I do not yet quite understand who is responsible for that difference in the cost. Who fixes the cost of the power on the American side?

Mr. McCumber—It is fixed, I suppose, by the commission that has to do with the production of power on the American side and the Canadian cost is fixed by Canadian laws; and under the Canadian laws the company is exempted from the taxes to which reference has been made. Therefore they secure the power more cheaply than it can be obtained on the American side. I can hardly answer the Senator from Iowa as to why that is so.

Mr. Cummins—If the commission could fix the rate for power on the American side so as to equalize that cost, then the two companies would be able to compete with each other on even terms.

Mr. McCumber—I might say that I am informed by the expert that the Canadian process—whether it is a patented process or not I do not know—is a somewhat cheaper process in addition to their power being cheaper.

Mr. Frelinghuysen—The question is one of protecting the American industry as against the Canadian industry, into which American capital has gone in order to secure lower water power rates, and which employs Canadian labor and uses Canadian raw materials, as I am informed. The whole principle of protection to American industry will be destroyed in this instance if this

article is placed on the free list, when prior to 1913, as I understand, it had a protective tariff higher than the duty now proposed to be imposed by the Finance Committee.

Mr. Norris—Mr. President, the Senator from Iowa (Mr. Cummins), has asked a very interesting question, namely, Why is hydro-electric power cheaper on the Canadian side than it is, on the American side? The Senator from New Jersey (Mr. Frelinghuysen) has just said that American capital went over into Canada across the river, where it could get cheaper hydro-electric power.

Not long ago a great many corporations engaged in the production of hydro-electric power in America appointed a very noted engineer to investigate the cost to the consumer of hydro-electric power in Canada and America. The Canadian hydro-electric energy comes from governmental operation. In America it is privately owned. It was to the interest of those interested to show that privately owned concerns supply the consumer with electricity cheaper than public concerns over in Canada, and the noted engineer to whom I have referred, made that kind of a report after a full investigation, and concluded that the consumers in America were supplied with hydro-electric power cheaper than it was supplied to the Canadian people by the government-owned operations. That

was when they were trying to prevent government operation of hydro-electric plants on our streams and to foster the idea of having such operations conducted by privately owned concerns. When it is looked at from that viewpoint they are able to demonstrate from expert testimony that private concerns furnish the power cheaper and that we have cheaper electricity on this side than on the Canadian side. When, however, for the purpose of a tariff it is to their interest to show that electric power is cheaper in Canada, they reach the opposite conclusion, and we are told that this corporation went to Canada, where they could buy their electric energy cheaper than they could in America. So Senators can take their choice; it is "heads I win and tails you lose."

Mr. Stanley—Mr. President, did the same experts reach a different conclusion at the same time?

Mr. Norris—No, that would make an argument that would be too easily refuted; there were different experts, of course.

* * * *

Page 8533—

Mr. McCumber—The real thing that is true is the fact that they sell their power to produce the cyanide on the Canadian side cheaper than the same power can be bought on this side.



Why "Portland" Cement

One of the questions most frequently asked concerning portland cement is the origin of its name. This is of very early origin and it is possible that a brief account of some of the early history of portland cement manufacture may be of interest.

The industrial world is indebted to John Smeaton, a Civil Engineer of England for unearthing facts which led to the perfection of the material now known as portland cement. Mr. Smeaton had been commissioned to build a lighthouse of masonry upon the Eddystone rocks off the harbor of Plymouth, England. These rocks were frequently covered at high tide, and during stormy weather and were a very serious menace to navigators entering the English Channel or Plymouth Harbor. Prior to Mr. Smeaton's work, the rocks had been marked by successive wooden towers carrying lights, but one after another these towers were destroyed by fire. The exposed location of the rocks and the violent storms which swept over them had led engineers to believe that nothing but a wooden structure bolted together could withstand the terrific pounding of the storms. Mr. Smeaton had been commissioned to build a lighthouse which would resist storms as well as fire and in 1756 determined to erect a masonry structure.

One of the many problems which he encountered in the erection of the structure was the need for a cement from which a mortar could be prepared which would develop high strength and which would harden under water. Being familiar with the fact that the early Romans had produced some kind of a hydraulic cement, Mr. Smeaton experimented throughout one entire winter with the available limestones until he

finally succeeded in burning and grinding a cement which had the property of hardening quickly and under water.

Smeaton's lighthouse was completed successfully in the year 1759, and his success in producing a sound hydraulic cement was the subject of repeated comments during the many years in which the mortar joints withstood the terrific storms without repointing. The lighthouse as a whole, remained in service for 123 years, or until the year 1882 when, though still in good condition, it was torn down and reconstructed, because it was desirable to erect a much higher tower with a more powerful light.

Mr. Smeaton's work in developing a hydraulic cement was of the utmost value to the English Admiralty in the construction of docks and wharves in various parts of the Empire. Several men produced hydraulic cements of varying qualities in England, but it was not until the year 1824 that the term "portland cement" was applied to any of these. In that year a patent was granted to one Joseph Aspdin, a bricklayer of Leeds, England, on a process for burning and grinding "Portland Cement." It appears the application of this term to the material had arisen from the fact that when the cement hardened into rock, its color and appearance was similar to a well-known building stone which was quarried on the Isle of Portland on the south of England and extensively used in all structures of importance.

At this time the use of cement was confined to the preparation of mortars and therein lies the forerunner of the test for tensile strength which is continued in standard specifications to this day. In the early days of cement manufacture, the strength of the cement was

gauged by preparing a mortar and cementing two ordinary building brick together with it. When this mortar had hardened from three to eight days, the brick were fastened in iron clamps and suspended beneath a tripod. One of the clamps hung from the top of the tripod while weights were hung to the other clamp. The number of weights which had to be hung on the lower clamp in order to pull the two brick apart at the mortar joint, was a measure of strength of the cement mortar. This scheme, crude as it was, has given us the standard briquette of today and our tensile strength testing machine.

Another test for the strength of mortars much used in the early days was that of cementing one brick to another horizontally out from the face of a vertical wall. The number of brick which could thus be held together with mortar joints straight out from the face of the wall, was a measure of the strength of the cement.

Following the development of the discovery patented by Mr. Aspdin, cement was manufactured and successfully marketed in increasing amounts in England for many years. In the United States the construction of the Erie Canal proved to be the stimulus for the production of natural cement from deposits of suitable rock in Chittenango, Madison County, N. Y., about 1826. The first experiments in the manufacture of portland cement in the United States occurred near Allentown, Pa., in the heart of the Lehigh Valley, about 1868, although it was not until 1872 that a commercial portland cement was placed on the market. This was known as Saylor's Portland Cement, and it was used in the Eads jetties along

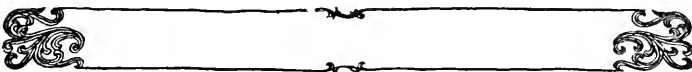
the Mississippi River and in the Drexel Building in Philadelphia, which was one of the first, if not the first, of American skyscrapers. During the succeeding years other manufacturers successfully produced portland cement in various parts of the country and the production has increased rapidly up to the present time.

In 1884 production in the United States reached 100,000 barrels. In 1896 it exceeded 1,500,000 barrels, and in 1908 exceeded 50,000,000 barrels. At the present time production varies from 90,000,000 to 100,000,000 barrels per year, which is more than sufficient to supply the present requirements of the United States and permits a substantial amount to be exported to other countries as well, principally South America and the West Indies.

Cement is an international building material and 32 countries of the world have specifications for portland cement, twenty of which differ in important details from each other. Twenty-five others use the specifications of other countries in assuring the quality of the cement in construction within the country and many others accept the cement if it passes the tests of the country in which it is made.

In this country there is but a single standard for portland cement, known as the American Engineering Standards Committee Specification No. 1, which has been adopted by the American Society for Testing Materials and substantially all of the great technical societies, and by the United States Government. American portland cement manufacturers guarantee their product to conform to this standard.

—(Concrete Highway Magazine.)



Success of the Los Angeles Power Plant No. 2

In a letter recently forwarded to the City Council by President R. F. Del Valle of the Board of Public Service Commissioners, a number of facts were brought to light concerning the remarkable success of San Francisquito Power Plant No. 2, operated by the Municipal Bureau of Power and Light.

The expense of constructing the power plant proper and equipping it with electric generating machinery, amounting to \$1,750,000, was borne entirely from revenue returned from the sale of electric energy with the exception of \$375,000 borrowed from the City's Reserve Fund. The entire cost of power plant No. 2, including all tunnel work done along the Los Angeles Aqueduct to provide for power development, amounted to \$3,310,000. At this point, it is proper to state that all of the construction work along the Aqueduct having to do with hydro-electric power development, has been paid for out of power bonds or power revenue. This course of action has always been followed because of the fact that the paramount purpose of the Aqueduct, which extends over 250 miles of mountains, valleys and deserts, is to supply the people of Los Angeles with water.

That the plant has been a tremendous success is evidenced in the fact that during its two years of operation, ending July 1, 1922, it has returned a saving or profit to the City of Los Angeles of \$1,023,704, or almost one-third of its entire cost.

The ability of the city to construct this power plant almost entirely out of power revenue has established the Los Angeles Bureau of Power and Light, throughout the business world, as a sound, efficiently managed and notably successful institution. It has proven

once more to the people of Los Angeles—the owners of the municipal power system—that their Bureau of Power and Light is not only supplying them with electric energy at extremely low rates, but is also returning a large surplus revenue from its operations. In this connection, it may be stated that although there are now electric plant bonds to the amount of about \$20,000,000 outstanding, no taxes will be collected from the people of Los Angeles this year to meet interest and principal repayments on these bonds. Interest charges and annual principal repayments on these power bonds for the fiscal year beginning July 1, 1922, amount to nearly \$1,700,000, and will be met entirely with power revenues.

A copy of the letter forwarded by the Board to the City Council is herewith attached.

BOARD OF PUBLIC SERVICE COMMISSIONERS.

June 30, 1922.

To the Honorable,
The City Council,
City of Los Angeles.
Gentlemen:

It is with a feeling of deep and sincere pleasure that the Board of Public Service Commissioners today informs your honorable body that the amount of \$112,500 has been transferred from Power Revenue to the City's Reserve Fund, to be used in paying off the balance of a loan made to this Department in 1920.

The Commission desires to extend to your honorable body an expression of its sincere appreciation of your action in authorizing this loan that has been so tremendously fruitful in its resultant benefits to the people of this city.

The total amount of the loan, authorized by your honorable body, was \$375,000. From time to time, payments on this amount were made by our Department, complete repayment being effected when \$112,500 was ordered transferred to the City's Reserve Fund at the last meeting of our Commission.

It will be remembered that the loan of \$375,000 was made to this Department in order that the Bureau of Power and Light might proceed with the construction of San Francisquito Power Plant No. 2. This plant was

provided for in the bond issue of 1919, but litigation kept these bonds in court for nearly three years. The plant was completed and in operation more than a year and a half before the bonds were finally sold. By far the larger portion of the expense of constructing this plant was borne by revenues returned from the sale of power.

Its two years of operation has proven San Francisquito Power Plant No. 2 to be a tremendous economic asset to the city. During the fiscal year 1920-1921, the Bureau of Power and Light distributed from this one plant 63,500,000 K. W. H. of electric energy. It cost the Power Bureau, to generate and distribute that amount of energy, \$274,320. Had that same amount of power been purchased by the city from the Edison Company, at the average rate for that year, it would have cost the city \$736,734. A comparison of these two cost figures discloses that during its first year's operation San Francisquito Power Plant No. 2 returned a saving or profit to the Bureau of Power and Light of \$462,414.

In the same way, during the fiscal year 1921-1922, just closing, this plant has effected a saving or profit of \$561,790, or a total profit for its two years of operation of \$1,023,704.

This profit of \$1,023,704 from one power plant is a notable achievement, we believe, in view of the fact that the entire cost of the plant, as it is now operated, amounts to \$3,310,000, or only a little more than three times the amount of saving or profit already realized from this plant. The amount of \$3,310,000 includes all of the money expended in aqueduct construction work in any way connected with power development at Power Plant No. 2, as well as the \$1,750,000 used in constructing the plant proper.

The financial success attending the operation of this power plant is all the more remarkable when it is realized that the plant was constructed in 1920, when the cost of material and labor was at its highest peak. The construction of the plant at that time was imperative in order to save Los Angeles from an acute power shortage, which was being experienced in other sections of the State, and the loan from the Council made it possible to render a very important service to the people of the city.

Respectfully,

BOARD OF PUBLIC SERVICE COMMISSIONERS.

By R. F. Del Valle, President.

Lakeport has recently voted a \$65,000 bond issue for extensions to the water works system, and \$10,000 to pay for the construction of a main trunk line sewer. It is expected that the macadamizing of the main street will shortly be undertaken.

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Wheels and the Land "Observations Along the Way"

By JAMES W. BROOKS
Director, American Highway Educational
Bureau.

Here is a thought for taxation experts who insist upon regarding the automobile as a luxury. It comes from Samuel Hopkins Adams: "The value of land is in inverse ratio to the amount of gasoline required to reach it." A truth so true that no amount of argument can explode it. Preceding the economic fact just stated, Mr. Adams said:

"Should gasoline, by some miracle, abruptly lose its explosiveness, what values would be most radically affected? Manufacturing, at first thought, would seem to be the worst sufferer, and next to that finance, which backs the motor industry, yet the combined injury to the two would be insignificant compared to the cataclysmic disaster to real estate values. Except in the great centers these are now actually predicated upon the motor car. Imagine a small city permanently cut off from motor transportation, how long would be required for it to become a deserted village? Nowhere has there been a more profitable, healthful and valuable development in American life than the suburb. The automobile is the main agency of this growth. It would be difficult to over-estimate the influence of the cheap and effective car upon the business efficiency and individual happiness in the agricultural districts. Drain the world of gasoline and there would be a crash in real estate values besides which the worst financial panic would be unimportant."

Never has the relationship between wheels and the land been more forcefully presented.

Colusa County Contract

Contract for surfacing with asphalt concrete a section of State Highway in Colusa County, in the town of Williams, about three-tenths miles in length, was awarded by the California Highway Commission to J. A. Costello, Jr., San Francisco. The contract price, not including materials which the State may furnish, is \$8,190.00.

Marin County Contract

Contract for grading and graveling a section of State Highway in Marin County, between Alto and Belvedere Crossing, about 3.5 miles in length, was awarded by the California Highway Commission to J. A. Modin & M. C. Preston, Byron, California. The price, not including materials which the State may furnish, is \$33,812.00.

Humboldt County Contract

Contract for grading a section of State Highway in Humboldt County, between Trinidad and Freshwater Lagoon, about 16.5 miles in length, was awarded by the California Highway Commission to the Pacific Construction Co., San Francisco. The contract price, not including materials which the State may furnish, is \$439,211.50.



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Imperial County Contract

Contract for grading and paving with Portland cement concrete a section of State Highway in Imperial County, between El Centro and Imperial, about two miles in length, was awarded by the California Highway Commission to John F. Knapp, Turlock, Cal. The contract price, not including material which the State may furnish, is \$36,552.00.

Santa Barbara County Contract

Contract was awarded to the Southwest Paving Company, Los Angeles, for asphalt concrete surface and concrete shoulders of 10.82 miles from Canada de las Llagas to Chiqueros Creek, in Santa Barbara County, on bid of \$103,705.00 plus materials furnished by State \$133,996.60, making total cost \$237,701.60. Estimate of California Highway Engineer \$264,908.72.

Orange County Contract

Contract was awarded to George H. Oswald, Los Angeles, for asphalt concrete surface and concrete shoulders on 8.77 miles, Easterly Boundary to San Juan Creek, in Orange County, on bid of \$126,615.00, plus materials furnished by the State \$66,545.70, making the total cost \$193,160.70. Estimate of California Highway Engineer \$220,537.73.

Lassen County Contract

Contract was awarded to the Warren Construction Company, Oakland, for grading about eight miles in length, between Johnstonville and Janesville, in Lassen County, on bid of \$37,056.00, plus materials furnished by the State \$5,552.30, making total cost \$42,608.30. Estimate of California Highway Engineer \$46,712.00.

Siskiyou County Contract

Contract for grading and paving with reinforced concrete a section of highway between Upton and Shasta River, in Siskiyou County, about 10.7 miles, was awarded by the California Highway Commission to the Kaiser Paving Company, Oakland. The contract price, not including materials which the State may furnish, is \$163,934.00.

Massachusetts to Limit Motor Truck Loads

The Massachusetts Highway Commission is seriously considering the reduction of the maximum motor truck load permissible on the highways of that state to 20,000 lbs. including truck and load. Such was the statement made by James W. Synan of the Massachusetts Highway Commission at the recent meeting of the National Highway Traffic Association. Mr. Synan said that an extensive plan of road building was under way in his state but, as it would take several years for the best type of roads to catch up with the existing highway transport conditions, it might be necessary to reduce the present legal weights until such time as the state roads could sustain the steadily increasing heavy traffic. The proposed limitation would prohibit the use of a motor truck exceeding five tons capacity.

Roman Road Building Revived in Italy

News of interest to Americans who delight in touring Italy by motor comes from Milan where a special committee of the Chamber of Commerce has reported in favor of the construction of an asphalt highway connecting Milan directly with Venice. The report states that both from a technical and a financial point of view the building of an asphalt road, which the growth in the number of motor tourists and the development of the motor truck is making more and more necessary, is possible and should be begun without delay.

If you want to live in the kind of a town
Just the sort of a town you like
You needn't slip your clothes in a grip
And go on a long, long hike.
You'll only find what you left behind
For there's nothing that's really new.
A knock at your town is a knock at yourself
It isn't the town, it's YOU.

Towns are not made by men afraid
That somebody'll get ahead.
If everyone works and nobody shirks
You can wake a town from the dead.
And if while you make your personal stake
Your neighbor can make one, too,
Your town will be what you want it to be
It isn't the town, it's YOU.

(Kansas Municipalities.)

FIRE HOSE

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MUNICIPAL LIGHTING SYSTEM AT REDDING IS PROVING A SUCCESS

(From the Redding Searchlight.)

The only public utility owned and operated by the city of Redding consists of the system of electrical distribution of light and power. This system was purchased under condemnation proceedings from the Pacific Gas and Electric on December 10, 1921, for \$57,356.18. Preliminary legal and other expenses brought the total cost up to \$60,000. That is the city's investment.

The total profits for the first six full months' operation from January 1, 1922, to July 1, 1922, have been in excess of \$13,000.

When the purchase was made the city had only the proceeds of the sale of \$40,000 worth of bonds, which brought \$3,000 premium. The sum of \$10,000 was borrowed from the general fund. Three citizens, large consumers of current, advanced \$5,000 more, or they paid for current in advance to that amount.

Money Repaid.

On July 1 the general fund had been made whole by the restoration of the borrowed \$10,000. The three citizens have used up \$2,541.75 worth of current. They have \$2,458.25 more coming to them. That is the city's only indebtedness for the system outside of the bonds.

There are 1,000 consumers, as represented by 1,195 meters.

City Manager Ernest A. Rolison who may be called the "father" of the system, for he was the first to urge municipal ownership, and he kept hammering away at it until it was brought about, makes this statement:

"Electrical energy is purchased from the company at a wholesale rate at approximately one cent per kilowatt hour and resold to the consumers of electricity within the corporate limits of the city at retail rates established by the State Railroad Commission for the use of public service corporations and applicable to this territory. These rates range from approximately eight

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cents downward, the average being four and five cents per kilowatt hour.

Much Power Sold.

"For the six months' period, January 1 to July 1 the city of Redding has bought and sold approximately 710,000 kilowatt hours, for which the wholesale price was \$9,785.61, and for which the city received the sum of \$30,015.17 at resale rates.

"The expenses of operating the plant for the above period, including interest and redemption of bonds, property and liability insurance, depreciation, labor and material for maintenance and operation, office salaries, etc., have averaged approximately \$1,200 per month, or \$7,200 for the six months' period, which, added to the cost of power, \$9,785.61, makes the total expenses \$16,985. This amount deducted from the gross receipts of \$30,015.17 leaves a net return in excess of \$13,000.

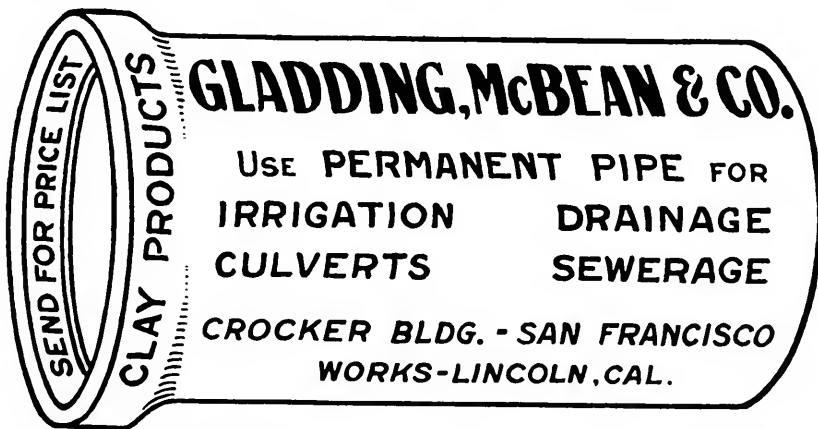
"While our annual report will not be complete for a few days and I have been obliged to estimate a few minor items, it is safe to say that the above

represents a conservative statement of our financial transactions in connection with the above utility."

Clearing \$2,000 a Month.

The \$40,000 outstanding bonds bear interest at 6 per cent. So the interest charge is \$200 a month. The city sets aside \$125 a month for depreciation. The salaries of the office are \$225 a month. Two linemen receive \$360 a month.

Redding is clearing a little over \$2,000 a month on its municipal system. The city has just let a contract for extending the paving of Market street to a connection with the state highway distant 3,319 feet at a cost of \$16,176. This paving will be paid from the profits of the lighting system, the trustees deeming this the best way to finance the public improvement. This avoids levying a special tax or voting more bonds. But for the urgent need of this public betterment, the trustees would reduce the rates charged consumers for light and power.



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PATRONIZE OUR ADVERTISERS
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If you saw their advertisement in Pacific Municipalities
 tell them so.

(Continued from page 224)

Another important feature of the City Manager Plan is that it enables the city to employ, without respect to political or geographical consideration, a qualified man of experience to give effect to the policies determined by a council democratically selected.

I believe the best municipal election system to be some form of non-partisan primary, protected in communities where the advice is practicable by a system of proportional representation and by the recall, if so devised as to eliminate the danger of too frequent elections, upon the petition of an inconsiderable minority.

Louis Brownlow, City Manager.

118,342 Nashville, Tenn., April 11, 1922.

The Charter we are now operating under was enacted something less than a year ago. It was the result of an endeavor to get a City Managership form, but politics entered into the situation and the result was that we secured neither a City Managership form nor a Commission form, but nearer, if anything, to the old councilmanic form. We are not satisfied with it, and undoubtedly an effort will be made to change it at the next session of the legislature, which meets January 1, 1923.

W. R. Manier, Secretary,
Chamber of Commerce.

11,791 Brownsville, Texas, April 15, 1922.

Replying to your favor of recent date, beg to advise that our city has been operating under a City Manager form of government since

1915. Our people seem to be satisfied with this arrangement. We like it better on account of the fact that it is easier to check up responsibility to the place it belongs.

Our charter provides for four Commissioners and a Mayor. They employ the City Manager. He employs his subordinates. The success of the plan depends almost entirely upon being able to secure a competent City Manager. We have had some real disappointments along this line, however, we do not blame the plan.

C. L. Jessup, Manager,
Chamber of Commerce.

208,435

Akron, Ohio, April 13, 1922.

Akron's home rule charter went into effect January 1st, 1920, with a council of eight members elected at large and its chief executive officer known as the chief administrator. On account of some mistakes politically on the part of the party which had a majority of the members of the council, a movement started largely by the opposite political party in 1921 secured the adoption of an amendment to the charter to provide for electing a councilman from each of eight wards and three councilmen at large. This council secured the resignation of the first chief administrator who had been appointed largely on account of political influence, and in January of this year appointed a chief administrator not formerly connected with politics in this city. The Mayor of the city was formerly principal of one of our high schools, who later went into business in Akron.



LaFrance Shut-Off Nozzle

Easy to operate. Will not get out of order. Large handle allows operator to grip it with his entire hand. Made of manganese bronze. Cannot be broken. When nozzle is shut, hose can be dragged down a ladder without danger of turning it on.



LaFrance Smoke Mask

Used by many of the largest fire departments. Provides complete protection against smoke, gas and ammonia fumes. Has saved the lives of many firemen in conditions which otherwise might have proved fatal. Each department should be equipped with a supply of La France masks.



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Consist of two-way aluminum metal automatic valve siamese; Perfection holder, with patent electric grounding device, deluge hose, deluge reducer and nozzle tips, the best known means of producing a tremendous stream of water.

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SAN FRANCISCO, CAL.

It is expected that under this new regime the city manager plan will have a better chance of demonstrating its efficiency in this city. General conditions on account of the inflation in 1920 and the financial depression succeeding in 1921 were such that it is very hard to make any proper comparison of the effectiveness of this form of government in this city as compared with our former federal plan.

There is no question but the home rule charter provides for a greater concentration, and with the proper management greater efficiency in the conducting of the city's affairs.

V. S. Stevens, Secretary,
Chamber of Commerce.

32,082 Ashtabula, Ohio, April 15, 1922.

This city has had City Manager charter form of government for approximately eight years. During most of that time the city has lived well within its income, and I believe that the majority of the better people of the community very strongly favor that particular form of government.

Its most serious defect probably lies in the fact that since the manager can be dismissed at the will of the Council, he may, at times, be influenced in his actions by that condition.

This city was the first American city to adopt Proportional Representation as a form of election, and after having held several elections we are quite well pleased with its results.

A. J. Horn, Manager,
Chamber of Commerce.

29,572 Colorado Springs, Colo., April 19, 1922

Since last April, we have been operating under the City Manager plan. It is the consensus of opinion that it is working out very satisfactorily. E. E. Jackson, Secretary,
Chamber of Commerce.

48,487 Kalamazoo, Michigan, April 11, 1922.

Answering your favor of recent date, relative to Modern City Charters, will state that our Charter is giving satisfaction. I am asking the City Manager to send you a copy, and also to tell you about the suggested amendments.

Civil Service is all right up to the point where it does not have a stamp of approval on inefficiency.

I think all public offices should be held by competent and efficient men, and generally Civil Service gives you that kind of a man. But if you shouldn't get that kind of a man, you have hard work getting rid of him once he has passed the examination.

Ray O. Brundage, Secretary,
Chamber of Commerce.

15,157 Albuquerque, N. M., April 11, 1922.

We wish to advise that our city charter is working very well indeed, and the City Manager form of government is very popular here and has been very successful. It has proven more efficient in every way than the old aldermanic form of city government, and it is the opinion of our citizens that under no condition would we go back to the old form.

D. B. McKee, Secretary,
Chamber of Commerce.

All Over the Civilized World



Armco Corrugated Culverts are proving their Reliability and their Lasting Quality.



The photograph shows one of the many Armco Culverts installed by Government engineers, twelve to fourteen years ago in Yosemite National Park.

The service they are giving is like that of thousands of other Armco Culverts under streets, highways and railroads all over the world.

**California Corrugated
Culvert Company**

Los Angeles

W. Berkeley

3,954 Iowa Falls, Iowa, April 11, 1922.

Your letter of April 1st asking for some information in regard to our charter on city government, will say that since it has been in the present form of city manager, it has been entirely satisfactory. The people who were against adopting this plan have been completely converted and they all realize now that it is far better than the old style of city government.

C. M. Wheeler, Secretary,
Community Club.

10,989 Boulder, Colorado, April 10, 1922.

We believe the City Manager plan to be a good one and it has meant much to Boulder in the way of new bridges, paved streets and other improvements which are the results of this system.

The Hare ballot system has proven a good thing for Boulder, although there are some who do not see its advantage over the election system.

C. R. Streamer, Secretary,
Chamber of Commerce.

39,604 San Jose, California, April 10, 1922.

I believe that the public budget and the accounting system under which the city's business is handled on a cash basis are two worthy features of the present charter. The placing of the Police and Fire Departments

under the control of the City Manager instead of under a Police and Fire Board, is, I believe, a step in the right direction in that it is easier to place responsibility where it belongs.

C. B. Goodwin,
City Manager.

7,000 Bozeman, Montana, April 10, 1922.

We have been working under this plan less than a year, and so far are well pleased with it. Our present law is a little cumbersome for cities of our size, and undoubtedly the next session of the Legislature will make some few amendments. We do not use the Civil Service system.

J. W. Harater,
Manager.

137,634 Big Rapids, Mich., April 11, 1922.

A great deal depends in this form of government on the ability of the manager employed as he must be a man possessing many faculties. With a commission of five and the right man as manager I believe this is a good form of government and the people are well pleased with it.

W. A. Stillwell, Secretary,
Board of Trade,

55,593 Long Beach, Calif., April 21, 1922.

The thinking people of Long Beach are pleased with the City Managerial form of

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government. The people who do not want to be disturbed, and who are against principles, make some criticisms. The old politicians are also against it, but we think in another six months or a year, a big majority will be for it.

Our charter needs amending in the way of removing residence clause which is a handicap, and should give the manager some additional powers.

I am not strong for Civil Service, because it does not give an opportunity to develop an organization based upon efficient service.

L. W. Ballard, Executive Secretary,
Chamber of Commerce.

4,878 Lufkin, Texas, April 13, 1922.

Our city has been under the management of a Commercial form of government for three or four years, and it seems to have worked very satisfactory indeed.

Important points in connection with the management of our city, are; first, a City Manager, who gives his entire time to the work on a salary, and handles the city affairs just as any business organization is managed. We have four commissioners and the Mayor who constitute an advisory board, which have at least two meetings per month, and consider all important matters in connection with our city affairs.

Wm. C. Hale, Manager,
Chamber of Commerce.

51,252 Tampa, Florida, April 13, 1922.

Civil Service is good for strictly political jobs. If a city is to be run on good, sound business principles, it is not required, and is an obstruction to efficiency. If a policeman gets drunk or a clerk steals, they must be let out at once without being obliged to go to the trouble having a trial before a Civil Service Board. I believe in holding some one respon-

sible for the work under them and letting them hire and fire without placing any handicap, such as a Civil Service Board, in their way.

A. W. D. Hall, City Manager.

6,192 Saint Augustine, Florida, April 12, 1922.

We are well satisfied with this plan, as it centers responsibility and eliminates politics and friction. All city employees are engaged on their merits and not on political "pull."

Our city manager studies the needs of the city carefully, keeps posted on the progress of other cities and on modern methods and applies this knowledge to the advantage of the city.

We find this form also economical, as we get full value for the money expended.

F. A. Rolleston, Secretary,
Board of Trade.

30,272 Newburgh, N. Y., April 12, 1922.

The City of Newburgh is working under what is known as Plan C, commission-manager form of government. This is one of a number of plans prepared by a committee and presented to the legislature of the State of New York, and approved by them. The reason we selected this plan is that it is the one that appeals mostly to cities of Newburgh's size, Newburgh being a third class city with about thirty-two thousand population.

The most important features of the city manager plan are as follows: First, it places the responsibility for the proper conduct of city affairs entirely in the hands of one responsible administrative head. The City Manager in Newburgh is the head of all departments except that of education. He appoints or discharges every city employee except the City Clerk and the members of the Civil Service Board. The City Manager only holds office at the pleasure of the City

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Council. He can be removed overnight if his services are not satisfactory, so it is up to him to render service or be removed. Because of this absolute authority the City Manager is free under our charter to obtain results that were absolutely impossible under the old aldermanic form of government, and I am quite sure that I voice the sentiments of the citizens of Newburgh that under no circumstances would they return to their former plan of city government.

W. J. McKay,
City Manager.

50,760 City of Niagara Falls, N. Y., Apr. 21, 1922

Some of the most important features of the city manager plan, at least for a city not exceeding 250,000 inhabitants, I consider to be a small council elected at large for four years terms. The salary should be small so that successful businessmen who cannot afford to give all their time to such work, can afford to accept the office of Councilman and so that the salary will be insufficient to furnish a livelihood and will not, for that reason, be attractive to the professional politician. Another important feature of every charter providing for this form of government should be a requirement that the City Manager need not be a local man.

Municipal elections should, I believe, be non-partisan and some form of proportionate representation should be employed to secure this end.

Edwin J. Fort,
City Manager.

65,857 Sacramento, Calif., April 15, 1922.

Under separate cover, I am sending you a copy of the Proportional Representation Review of last January which covers, in a short space, the outstanding accomplishments under the manager form of government. Really there have been no serious defects in the operation of the charter. Everyone seems to be very well pleased, except some of the former office holders who lost their jobs when the new government went into effect.

Irvin Engler, Assistant Secretary,
Chamber of Commerce.

60,840 Springfield, Ohio, March 7, 1922.

The citizens of Springfield, are well satisfied with the Commission-Manager form of government, and as yet there has never been any inclination that I know of, to attack the new plan for the purpose of recall.

Springfield has been under the Commission-Manager Plan for eight (8) years, and during that time they have operated the city on a cash basis, making one-half the value of all improvements made during the history of Springfield which directly benefit the citizens such as sidewalks, curbing and guttering, sewers and paving.

E. E. Parsons, City Manager.

9,734 Cadillac, Michigan, April 17, 1922.

Our commission form of government was adopted by a good majority. Two years after it was in operation an effort was made to go back to the old system and three-fourths of the

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voters expressed their favor for the commission form. At the present time I am quite sure that a very much larger proportion than that would formally object to any change.

Our city activities are quite as near to the business like operation of a well-managed industrial plant as we can make them. We recognize the fact that the city government must be representative and responsive, that is, must have in view the wishes of the people and it must not become too mechanical or carry the ambition for efficiency so far as to make it offensive or objectionable.

C. R. Smith, Secretary,
Chamber of Commerce.

152,559 Dayton, Ohio, April 13, 1922.

When this Charter was adopted by the people, it was expected to provide an adequate, economical, and efficient form of government, and one that would be responsive to every demand of the people and devised to suit its particular needs. It was felt it would be far superior to any form of government provided by the Ohio General Assembly, which was suitable to no particular city in the state, and which was antiquated, cumbersome, and wholly unsuited to the needs of a modern, progressive city.

F. O. Eichelberger,
City Manager.

54,387 Portsmouth, Virginia, May 17, 1922.

My general idea would be that the Council should not exceed five members and that it

should be elected at large. The Council's functions should be confined strictly to legislative work and all executive functions connected with the city centralized in the City Manager, under whom should be Departments of Public Service, Public Safety, Public Welfare and Public Utilities, if necessary, each department being controlled by a director appointed and removable by the City Manager.

J. P. Jervay,
City Manager.

30,891 Waltham, Mass., May 10, 1922.

The City Manager Plan is the application of the principles of private corporation management to municipal administration. The City Council corresponds to the Board of Directors, the Mayor to the President of a corporation, and the manager is the chief executive officer, responsible to the Council for proper and efficient management of all departments.

Under this system it has been found feasible to secure as Councillors business men of mature judgment, successful in the management of their own affairs, who apply to the administration of city affairs the same principles that they apply to their own business.

Political considerations are eliminated. Appointments to office are made solely upon merit. In undertaking new projects the welfare of the whole city is the only consideration.

We are now in our fifth year under the City Manager Plan. In its early months of trial there seemed to be much dissatisfaction on the part of the public and the press, but this has

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gradually disappeared until now public opinion seems strongly to favor it.

At a recent election when 60 per cent of the total registration was cast, the Mayor, who has stood for the City Manager Plan and who has been in office since its adoption, received a clear majority over two opponents, one of whom was peculiarly a representative of the old form. At the same election two members of the council who have been identified with the City Manager Plan and who also have served since it was adopted, were reelected by large majorities over their opponents.

Henry F. Beal,
City Manager.

11,296 Goldsboro, N. C., June 8, 1922.

I enclose herewith a short story which will give you my idea of the manager plan. During my experience as manager I have never had any experience with schools, as the schools in the two cities in which I have been employed have been operated separately by a Board of Education. As to election systems, I am inclined to favor proportional representation, although I have never seen this system in actual operation. I am not in favor of Civil Service, as I believe it would be a handicap to a City Manager, although I have never had any experience with it.

W. M. Rich,
City Manager.

45,334

Pasadena, Calif., July 14, 1922.

On April 1st you wrote me concerning modern city charters or any suggestions that I might have.

I wrote you at the time setting forth certain fundamentals in regard to the division of authority under the City Manager form of government and the design of charter best suited for that form of government. I am more strongly than ever of the opinion that all departments should be placed under the City Manager and all appointments made by him, rather than that there be a division of responsibility.

As to Civil Service, personally I do not think that it is necessary under the City Manager form in the ordinary city, especially of 100,000 or less, to establish Civil Service because under the City Manager form of government you have the principle covered by Civil Service embodied in its form and in its working, for the reason that the City Manager tries to surround himself with the very best help he can get and therefore he is not using it in a political way, which Civil Service was designed to prevent.

C. W. Koerner,
City Manager.



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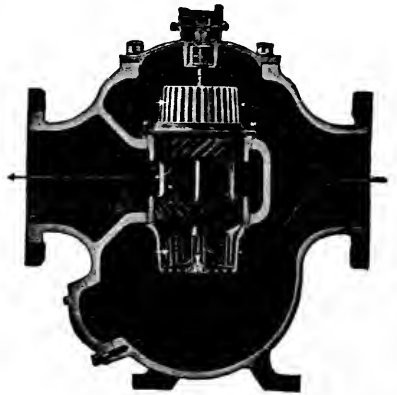
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Official Call
to the
Twenty-fourth Annual Convention
of the
League of California Municipalities

TO ALL COUNCILMEN AND OTHER OFFICIALS
OF THE CITIES AND TOWNS OF CALIFORNIA:

Your attention is respectfully called to the Twenty-fourth Annual Convention of the LEAGUE OF CALIFORNIA MUNICIPALITIES, which is to be held this year at Palo Alto and Stanford University, September 19th to 23rd, 1922.

Every city and town in California is urgently requested to send one or more representatives to this meeting, as matters of extraordinary importance to municipalities will be considered, including plans for defeating the three vicious constitutional amendments which have been proposed under the initiative as a blow against municipal home rule; one being an amendment to subject publicly owned utilities to taxation, another subjecting them to regulation by the Railroad Commission, and the other depriving cities of the power to grant street railway franchises over their own streets and transferring that power to the Railroad Commission.

The right of "local control over local affairs" is one of the most sacred principles announced by the founders of this great republic. If you believe in upholding that principle, and are willing to assist in defeating the proposed amendments, see that your city is represented at this meeting.

Respectfully,

LOUIS BARTLETT,
President.

WM. J. LOCKE,
Executive Secretary.

Pacific Municipalities

AND COUNTIES

OFFICIAL ORGAN OF THE LEAGUE OF CALIFORNIA MUNICIPALITIES
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San Francisco, California

August 1922

NOTICE—Every city belonging to the League of California Municipalities is entitled to a copy
of this magazine for each of its officials without extra charge. If not received kindly notify the
Secretary.

A. Carlisle & Co., Printers, San Francisco

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Organized 1897

Affiliated with the Bureau of Municipal Reference, University of California

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INFORMATION BUREAU

The League of California Municipalities maintains in connection with the Secretary's Office, a Bureau for furnishing city and town officials with information on municipal affairs, and loaning copies of new ordinances and specifications. Officials are urged to make a free use of this Bureau. Kindly send a self-addressed stamped envelope in all cases.

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OFFICIAL ORGAN OF THE LEAGUE OF CALIFORNIA MUNICIPALITIES

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under the act of March 3, 1879.

The Approaching Convention at Stanford University.

September 19th to 23rd

Preparations for the twenty-fourth annual convention of the League of California Municipalities are now under way, and there is reason to believe that the meeting will be of unusual importance.

"California's Water and Power Act," which was unanimously endorsed at last year's convention in Santa Monica will be on the program again for presentation in the form of a debate between a leading champion of the advocates and one of the opponents, the object being to present in the most effective way a summary of all the arguments which have been raised for and against this most important measure.

Hon. Francis J. Heney has been requested to present the case for the proponents, while Col. R. B. Marshall will speak in opposition.

Another matter of importance will be the receipt and disposition of a report of the committee appointed by President Bartlett on the proposed constitutional amendment on franchises, and the others taxing publicly-owned utilities and subjecting them to regulation by the Railroad Commission.

Other subjects and leading speakers which have been selected up to the time of going to press are as follows:

Garbage Collection and Disposal.

Alameda, like many other California cities, is confronted with the difficult problem of finding a satisfactory method for disposing of its garbage. Until recently the wet matter was separated from the dry rubbish and sold to neighboring hog ranchers, after which the dry rubbish was deposited on Bay Farm Island. Permission to dump the rubbish having been recently revoked, the city was confronted with the necessity of finding some new method of disposal. A garbage incinerator was decided upon as being the best way of solving the problem, and City Manager Hickok was sent East to investigate the various incinerators now in operation throughout the country. Major Hickok submitted a elaborate report, which was published in a recent number of Pacific Municipalities and attracted wide attention. On this occasion he will go into more detail, and be prepared to answer questions submitted by interested officials.

Getting Results in City Planning.

Mr. Cheney has devoted a great deal of attention to the subject of city planning, and is regarded as an authority on the subject. One of the primary undertakings in a city planning program involves the problem of zoning or dividing a city into industrial, commercial and residential districts. Mr. Cheney has performed service of this kind for Fresno, Alameda, Portland, and several other California cities and, at present writing, is engaged in like capacity by the city of Long Beach.

A Model Tax Ordinance.

At the last meeting of the clerks, auditors and assessors the matter of a model tax ordinance was brought up for consideration. Some of the clerks believe that the present tax ordinances are unsatisfactory. Several years ago a committee of the city attorneys discussed this question and thought they had solved the matter, but some of the clerks apparently think otherwise. For that reason this number on the program should prove of unusual interest. It will be discussed at a joint session of the clerks and attorneys.

Bookkeeping Required Under the Improvement Bond Act of 1915.

The 1915 Bond Act requires a lot of bookkeeping and accounting, and many cities have been deterred from making use of the act because of that fact. However, it has many other points of advantage which more than compensate for the elaborate accounting required. Daly City has made use of the act and Mr. Biebel, as city clerk of that municipality, is conceded to be quite proficient in its accounting provisions.

Problems of a City Manager.

City managers, like other officials, have their troubles, which are commensurate to a large extent with the size and character of the municipality. Since his appointment as manager, Mr. Seavey has been called upon to solve many difficult problems in Sacramento, and his story will not only be interesting, but undoubtedly of great advantage to other city managers.

Social Service Work.

It is a recognized duty and one of the principal functions of a well-governed municipality to look after the social welfare of its people, and no person in the state knows more about this subject than Mrs. Spunn, who is now in charge of the social service work of Alameda. She will tell of the wonderful success of the Alameda City Health Center, and what it has done to relieve sickness and distress in that municipality.

Budget Experience of California Cities.

It is generally agreed that a city, like a well-run business institution, should use the budget system and make an estimate of the various contemplated expenses of government as a basis for taxation. Mr. Dolge has specialized to a large extent in municipal accounting and has done much of this work for California cities. His experience and observations will be of great value.

What Should Go Into the Minutes?

This is an interesting matter as well as an important one, likewise one concerning which there is much difference of opinion. Should the minutes recite only the motions and resolutions upon which definite action is taken or should they extend to discussions and other matters? Mr. Varcoe will refer to

many important cases wherein the judge's decision depended entirely upon the contents of the minute book.

Whole Time County Health Departments from an Economic Viewpoint.

The public fails to realize the great economic burden society is compelled to bear on account of sickness and ill-health, most of which is preventable.

It costs less to keep people well than to cure them after they get sick. In other words, "An ounce of prevention is worth a pound of cure."

This is the theory upon which the full time health program is based, and Dr. Dickie will show that that theory is a sound one.

Palo Alto's Street Work Procedure.

The officials of Palo Alto have devised a plan for improving streets which results in saving the property owner a lot of money. The story of how it is done will be explained by Palo Alto's engineer and its city attorney.

Legal Points That Engineers Should Know.

There are many legal points, especially in connection with street work proceedings, which should be familiar to every city engineer. For example, the plans and specifications must be complete in every particular, and leave nothing to the imagination or for future interpretation.

Mr. Kirkbride knows as much about these matters as any other man in California and a talk from him on this subject will undoubtedly be very interesting and instructive.

Proportional Representation.

"The cure for the ills of democracy is more democracy."

The explanation of Proportional Representation at Santa Monica which was accompanied by a demonstration of the Hare system of voting was not satisfactory. For this occasion we have succeeded in securing the services of Mr. Cameron H. King, the official representative on the Coast of the Proportional Representation League. It was largely due to the work of Mr. King that Proportional Representation was adopted in Sacramento.

Public Officials and the Press.

The newspapers do not treat public officials fairly. They are quick to condemn but slow to commend. As a result the public receives the impression that dishonest officials are the rule and not the exception, whereas the fact is that the corrupt official is a rarity. The press of the country could do much to create a better feeling toward public officials and bring about a situation which would undoubtedly result in securing a better class of men for public office.

Why are newspapers always looking for scandal? They say the public demands it, but has the newspaper not created that demand? It is a well known fact that while an official may be 99% right and serve the public for many years without a cent of pay or a word of commendation, let him make but one slip and no words are strong enough for his denunciation.

The city officials will be curious to hear what Mr. Rowell will have to say upon this subject.

The Proposed Electric Railway Franchise.

This amendment is designed to deprive city officials of their present control over street railway franchises and turn that power over to the railroad commission.

One of the objects of the amendment is to relieve the street railroads of their present obligation to pave the streets between the tracks and two feet on either side.

In the event of its adoption, a street railway company might run through the finest streets of a city with its poles, wires and tracks, and the people of that city will be powerless to prevent it.

The proposed amendment violates one of the most sacred principles of our form of government, to wit, the right of each community to control its own local affairs, and Mr. Reed, as one of the sponsors of the amendment, will have a hard time persuading city officials to view this proposition in any other light.

Municipal Charters in the Making.

By WM. J. LOCKE, Executive Secretary.

Serving on a Board of Freeholders is one of the most important duties a citizen is ever called upon to perform. A city charter should never be the product of a paste pot and shears. The first requisite for a good charter is to secure good men to frame it, after which the work should be proceeded with in a systematic and orderly fashion. Mr. Locke will explain how this should be done.

The City Attorney.

By JESS E. STEPHENS, City Attorney of Los Angeles.

No city of any consequence could accomplish very much without its legal department, and it will undoubtedly be conceded that the city attorney is one of the most important officials of a municipality. We are to be favored on this occasion by having with us the gentleman who has the distinguished honor of holding that important office in the largest municipality of California.

It is a fitting subject for the man chosen to present, and Mr. Stephens will undoubtedly have some interesting things to say.

The Boulder Canyon Project.

By WILLIAM MULHOLLAND, Builder of the Los Angeles Aqueduct.

Mr. Mulholland has been asked to attend this conference and tell the delegates something of the great Boulder Canyon project, which is designed primarily to control the flood waters of the Colorado River and protect the Imperial Valley from inundation. Incidentally the project will enable the generation of more water power than Niagara.

At the hearing held in San Diego last year before Secretary Fall the Southern California Edison Company signified a desire to handle the matter, but Secretary Fall declared that the enterprise would be undertaken and controlled by the Federal government. Since then a bill was introduced in the House of Representatives by Congressman Swing to provide for the work. Chagrined by their defeat the private power companies have circulated a report that the great project would only benefit Southern California and especially Los Angeles.

Bill Mulholland will show that the Boulder Canyon project will be a great benefit to the whole state and not merely a portion of it.

Public Health.

By DR. RAY LYMAN WILBUR, President of Stanford University.

No subject is more important than that of public health. No function of municipal government is fraught with greater responsibilities. The courts have said that public officials may go

further in the cause of public health than anything else. It is a source of gratification to know that President Wilbur of the American Medical Association will address the convention on this great question.

Relations Between City Officials.

By C. A. DYKSTA, Secretary, Los Angeles City Club.

The success or failure of the modern Chamber of Commerce depends in a large degree on its secretary. The word secretary is really a misnomer, as the present day secretary is more of a manager than anything else. Obviously it is to the best interests of a city that the relations between the secretary and city officials be most friendly, as the Chamber of Commerce, like the municipality, is engaged in community development.

Municipal Development.

By Dr. B. M. RASTALL, Consultant, S. F. Chamber of Commerce.

Dr. Rastall is a recognized authority on this subject which, in a sense, embraces every activity in which we are engaged. The development of a city includes its moral as well as its physical development, and government should concern itself with the happiness of a people more than their material prosperity. Dr. Rastall's reputation is an assurance that he will have an interested audience who, no doubt, will profit greatly by his address.

Alameda's Board of Social Service and City Health Center.

By BEULAH E. SPUNN, of Alameda.

Most cities are now vitally interested in public health centers, their organization and relation to local welfare work.

In Alameda the health center and social service work has been co-ordinated with great success.

Mrs. Spunn is a graduate of the University of California from the Department of Social Economics and Political Science. In 1917 she was made assistant secretary of the Fresno Department of Public Welfare. In 1918 she became executive secretary, Humboldt County Department of Public Welfare, leaving that position in 1920 to organize the Alameda Board of Social Service, later assisting in the organization of the City Health Center of Alameda.

Housing Accommodations at Stanford.

Delegates to the convention, and those accompanying them, will be boarded and lodged at the university substantially at cost. The authorities expect they will be able to accommodate nearly all the city officials in Encina Hall.

For reservations write to Mr. Warren F. Lewis, Stanford University.

Make your reservations early.

Moving Picture Films to Be Shown at the Convention Under the Auspices of the State Board of Health.

"Service."

This teaches health, happiness, helpfulness, honesty, industry, and regard for rights of men and animals. It also impresses on the minds of children the need for intelligent service, freely given and practiced daily in the home. Home chores are explained and the correct mode of procedure is noted, such as in fire-making, dishwashing, et cetera. One reel.

"Obedience."

This film shows that good citizenship begins with the practice in the home of certain fundamental civic virtues, obedience, service, thrift, order and health, and teaches that no community can ever be more orderly, prosperous, beautiful, or healthful than its homes, and that no one who is not a good citizen in his own home can be a good citizen anywhere else. It appeals to the child by showing the comfort, happiness and safety he receives through obedience to proper authority in the home, as contrasted with the natural results of a lack of law and order there and in society. It serves to promote intelligent obedience. One reel.

"Mental and Physical Fitness."

The aim of this film is to teach boys

and girls to meet responsibility, and that happiness, self-respect, and real life values come to those physically and mentally fit, and that such fitness depends largely on systematic daily training. This makes an especially strong appeal to all children who love outdoor exercise and athletics. One reel.

"Serving the Community."

This film teaches the children how necessary it is for them to co-operate with adults in eliminating those conditions which endanger the lives of the citizens. In this film, the housefly is used as an example. It appeals to the social instinct as well as the instinct of self-preservation and self-protection, and to the civic pride of the children and their desire for commendation.

THE NEXT ISSUE OF THE PUBLICATION
WILL BE THE OFFICIAL PROGRAM
NUMBER AND WILL COME
OUT JUST BEFORE THE
CONVENTION.



CORONADO
WISHES TO EXTEND TO THE
LEAGUE OF CALIFORNIA MUNICIPALITIES
AN INVITATION TO HOLD THE
CONVENTION OF 1923 IN THEIR CITY

Is the Ontario Hydro-Electric System a Success?

Ontario Answers.

The private power companies and their hirelings claim that the Ontario system is not a success. As California's Water and Power Act was patterned after the Ontario measure it is important to know whether there is any truth in that claim or if it is only propaganda. Believing the Chambers of Commerce throughout Ontario would be a reliable source of information on the subject, we sent them a letter as follows:

August 5, 1922.

Secretary, Chamber of Commerce.

Dear Sir:

There is a proposed constitutional amendment now pending before the people of California which provides for the development of our hydro-electric resources by the state. It is based on the Ontario plan of government ownership and operation.

The private companies out here which are opposing the proposed measure are claiming that the Ontario system has not proved successful, and we are anxious to know if that is true.

Any information you may give us on the subject will be greatly appreciated.

Yours truly,

League of California Municipalities,

Per WM. J. LOCKE,

Executive Secretary.

All the replies received, up to the time of going to press, are as follows:

Huntsville, Muskoka, Aug. 16, 1922.

Wm. J. Locke, Esq.,
Executive Secretary, San Francisco, Cal.

Dear Sir:—

Your letter of 5th instant to hand and in reply would say that I am very pleased to be able to say a good word in defence of the Ontario Hydro Commission. I have no personal knowledge of its workings outside of Huntsville apart from hearsay and what I read. This,

however, has always been favorable, wherever the question has been treated in a fair and impartial manner.

Huntsville's position with regard to Hydro Power is somewhat unique. In early days electric light was supplied for mercantile and domestic lighting by a private company and was in a way an experiment and more or less unsatisfactory. Following that we had an experience of a municipally owned team plant which was satisfactory in early years. Then as the load increased and the cost of fuel seemed to go up by leaps and bounds the service was poor and expensive and there was limited service of night service only. There was agitation for water power development for a considerable length of time, and after available powers had been inspected and measured up the most practicable appeared to be the water power at South Falls, which is situated over thirty miles from Huntsville, where the existing plant was taken over and improved by the Ontario Hydro Commission, yielding some 850 H. P. We have one industry taking 550 H. P. fixed and additional if not required by other customers. This current was turned on five years ago. The cost did over-run the original estimate. This was due principally to the enhancement of cost of material, etc., due to war conditions as the Commission, along with many others, was foolish enough to think that the great war would be of short duration and failed to make contracts for material prior to the rapid rise in price due to that war. In spite, however, of some mistakes which may have been made we have an excellent 24-hour service, available for lighting, cooking and mercantile purposes. About six and a half miles of streets all comfortably lighted, and the same system furnishes power for pumping the water used for domestic and fire purposes from a lake into the reservoir 250 feet above the water level. Without the aid of one of our local factories which contracts for 550 H. P., we would not have been able to engineer the installation, which cost in the neighborhood of \$169,000.00. It is thought by some that this customer secured too favorable a contract. Possibly this is so, but for all that, no real citizen would ever want to go back to the old system. I am adding the names of some gentlemen of standing who I am sure will be pleased to reply to any inquiries you may wish to make of them. I might state in conclusion that Huntsville is possibly one of the poorest examples in the meantime that might be chosen to illustrate the benefits of the Ontario Hydro Commission, which so far as we understand it is operated BY THE PEOPLE FOR THE PEOPLE.

Yours very truly,

HUNTSVILLE BOARD OF TRADE.

Per MACKIE KINTON, Sec'y-Treas.

PACIFIC MUNICIPALITIES

Niagara Falls, Canada, Aug. 17, 1922.
League of California Municipalities,
San Francisco.

Dear Sirs:—

We have your letter of August 5th, and in reply beg to advise you that we have no hesitation in saying that the Hydro-Electric System as handled by the Province of Ontario, is very satisfactory to the public.

Manufacturers who use large blocks of power are well served, and during the past twelve months the Commission under which the scheme has been developed has extended the service so that farmers throughout the Province may use it for power and lighting purposes.

For the last few years we hear of practically no opposition by private companies. In fact most of these have been taken over by the Ontario Hydro. Electric Commission, so that the Province is now practically served by the Public Commission.

Sincerely yours,

H. H. BEAM,

Sec. Niagara Falls Chamber of Commerce.

Dresden, Aug. 16, 1922.

Wm. J. Locke,
San Francisco
California.

Dear Sir:—

Your circular letter of 5th inst. received and contents noted.

Our Ontario hydro-electric service is very efficient and economical, and the system of government ownership is, I believe, the most practical plan of operation.

Yours truly,

H. E. WELLS.

Watford, Canada, Aug. 17, 1922.

W. J. Locke, Esq.,
Sec. Leagen of California Municipalities,
Pacifie Building,
San Francisco, Calif.

Dear Sir:—Re Hydro-Electric Resources.

In answer to yours of the 5th instant I consider that there is no comparison between government-owned electric light and power and private ownership. Watford could not get on under private ownership again. It is thought that the government is trying to give the users service and to regulate the cost to the consumer.

Yours truly,

W. S. FULLER,
Clerk.

Listowel, Ont., Aug. 17, 1922.

The Secretary,
League of California Municipalities,
Pacifie Bldg.,
San Francisco, Calif.

Dear Sir:—

I have your letter of the 5th inst., and in reply beg to say the Ontario Hydro-Electric System for the development of electric power, appears to be much in favor with the general public. From my own experience as a resident of the city of Toronto, until two years ago, I am able to state positively that my bills for

electric current for domestic use were cut in half after the installation of Ontario Hydro. During the last two years very many of the small municipalities have been supplied with electric power which they would have been unable to have had, being too small to support a private company, if the Ontario Hydro development had not taken place.

As to whether the system is successful or not, there seems to be some difference of opinion. Some of our newspapers are continually finding fault with the management and claim that the Province is being saddled with a huge debt. It is quite possible that these papers may be in sympathy with private ownership. On the other hand many of our most important daily papers are out and out in favor of the project. To a layman, it would appear to be a difference of opinion between experts. It is a big question, but I think the public generally are much in favor of the project.

Yours faithfully,

H. P. WANZER,
President.

Owen Sound, Ont., Aug. 17, 1922.

Mr. Wm. J. Locke,
Pacific Bldg., San Francisco.

Dear Sir:—

Yours of August 5th to hand. In reply would say that we are using Provincial hydro power with satisfactory results. But you may receive further information by communicating with the local Commission here, of which Mr. John Parker is secretary.

Yours truly,

R. D. LITTLE,
Secretary.

London, Canada, Aug. 17, 1922.

Wm. J. Locke, Esq.,
Executive Secretary,
League of California Municipalities,
Pacific Bldg.,
San Francisco, Cal.

Dear Sir:—

Replying to your favor of August 5th I am enclosing under separate cover report of the London & Port Stanley Railway, which is electrically operated by hydro from Niagara Falls.

This city also purchases power at the city limits from the Ontario Commission and delivers it very efficiently by a municipally owned system operated by the Public Utilities Commission.

We will be glad to reply to specific question if necessary.

Yours very truly,

GORDON PHILIP,
Managing Secretary.

Granton, Ont., Aug. 16, 1922.

Wm. J. Locke, Esq.,
Secy. League of California Municipalities,
San Francisco.

Dear Sir:—

Your communication re our Hydro-Electric System addressed to Chamber of Commerce has been handed to me to make reply.

Where a large sum of money is expended for any public utility there will be criticism, which is the case here, and Sir Adam Beck, who is the head of the system in Ontario, is being severely criticized at the present time, but notwithstanding he goes right on and makes good.

We have a small village here—streets all well-lighted with hydro, the total cost of which was between three and four thousand dollars, which is gradually being reduced by a payment by the village of forty dollars per month.

Practically every home and business place are lighted with hydro, some of them ironing, washing and cooking with it. Our flour mill, grist mill and saw mill and also pumping for public school are operated by hydro, and the system is being extended to the farming industry.

The cost to light the average home is from one dollar to two dollars and fifty cents per month. Each municipality or corporation has its own local hydro commissioner, who collects the money each month. It consists of chairman, secretary and treasurer. Accounts are audited from time to time by auditor from head office.

So far as I have knowledge the system is eminently satisfactory. No more private companies for us.

The main criticism seems to be of the proposed Radial electric roads, paralleling steam railways which are now largely owned by our Dominion Government, and on which there is a large deficit.

Yours truly,
J. GRANT,
Chairman of Local Commission.

Village of Victoria Harbor,
Province of Ontario,
Aug. 16, 1922.

Wm. J. Locke, Esq.,
Executive Secretary,
San Francisco, Cal.

Dear Sir:—

Re Ontario Hydro-Electric Commission.

Your letter of the 5th of August to hand, and I am pleased to be able to answer it and give the Ontario Hydro-Electric Power Commission a small boost. This municipality was served prior to the year 1915 by the Simcoe Railway & Power Company, from a power plant on what we call the "Big Chute" on the Severn River. About the year 1915 the Hydro-Electric Power Commission purchased the plant of this company for something like \$800,000.00, and started serving all the municipalities that would deal with them. Our rates for domestic and commercial lighting service was 10 cents per K. W. hour with a meter rental of 15 cents monthly extra, in those days of cheap power before the war-time raise in all commodities. We were approached by the Commission to purchase the power lines in our own municipality and take the power from the Commission the same as other municipalities, but we thought the undertaking too great at the time for a village to shoulder, but finally the plant within our

limits was purchased from the Commission, and we started using power at a price per H. P., instead of going ahead at the old rates. The result was a great reduction in our bills after making the usual sinking funds for depreciation and debenture charges.

We have gone forward ever since, gradually wiping out the indebtedness as well as greatly reducing rates. Our present rates for power for lighting service are as follows: Domestic, 3 cents for a floor charge space of every 100 feet, with a rate per K. W. of 5 cents, with a reduction to 2½ cents for all consumption over and above the floor space charge in K.W. hours. I enclose two of our bills so you can see how it will figure out.

If it were not for this Commission such places as Victoria Harbor would not be able to have anything like the conveniences we have today. We are beginning to do everything in our homes with electricity. For instance in my own home I use the following: Electric washer, toaster, vacuum cleaner, small electric range, percolator, water heater and fans. My bill for the last two months was less than \$6.00, and we used it quite a lot in this hot weather.

The Ontario Hydro-Electric Power Commission has been assailed by almost every vested interest in Canada, and has been fiercely attacked by concerns in the United States as well. The Commission has gone forward into every place that will have them in Ontario and sold power at cost price to municipalities. When I say cost that is what I mean. They have undertaken great developments as well as purchased power from going concerns for the people at their own price, as they have control of all water powers in the province if they want them.

The operation is largely in our own hands. We have organizations on each system in which the Commission always is represented in order to answer questions or explain the system to those that do not thoroughly understand it. I can do nothing but praise up the Commission and you will not get anything else from any user of electric power on our system. If you go into this you must expect to have adverse critics on you until it is tried out to your entire satisfaction.

Hoping that you will go ahead with your system in California, and make it as much of a success as it has been in Ontario. The Commission here is for the common, everyday people and not for the money sharks.

Yours truly,
E. B. BROWN,

Clerk and Treasurer of Victoria Harbor, Ont.

Georgetown, Ontario, Aug. 16, 1922.
League of California Municipalities,
Pacific Building,
San Francisco.

Gentlemen:—Re Ontario Hydro-Electric Power Commission.

We presume you are writing all other municipalities in this system for their experience and that you have the general reports of the workings of the entire system in Ontario. The Ontario Government can of course supply them.

When the system was extended to Georgetown in 1913 the domestic rate was $4\frac{1}{2}$ cents K. W. H. up to a consumption of 72 K. W. H., all over that being $2\frac{1}{2}$ cents K. W. H. Today the rate is 2 cents K. W. H. and all over 72 K. W. H. 1 cent K. W. H. The power rates were \$15 per H. P. and are \$25 now. The writer has taken some old receipts for electric service on his farm here, the first of January, 1916, showing a 4 cent rate paid, and the last of May, 1921, showing a \$1.25 rate for all over the first 72 K. W. H. The rate now is 25c less than the latter.

This is a municipality of 2,500 people, and in eight years besides giving the rates above named and providing a sinking fund of \$14,000, an additional \$14,000 has been invested in securities as a reserve.

Our partnership in this enterprise has been of first importance to us. Public ownership and operation of our water powers has a solid grip now, and only those financially interested in privately-owned plants strive to work against the publicly-operated system. The evidence, however, is all against the old system. One has but to review old conditions in any of the municipalities previous to hydro's entry to see the millions of dollars already saved to the people of Ontario.

We wish you great success in your efforts on behalf of the people.

Yours very truly,
GEORGETOWN CHAMBER OF COMMERCE.
A. F. BRADLEY,
Secretary.

Brantford, Canada, Aug. 15, 1922.

Mr. Wm. J. Locke,
Executive Secretary,
League of California Municipalities,
Pacific Bldg.,
San Francisco, Cal.

Dear Sir:—

We most heartily endorse the hydro-electric plan operated by the Hydro-Electric Commission of the Province of Ontario. It is absolutely successful in every sense of the word, and is so spoken of by every individual and municipality interested, with the exception of the "big interests." The State of California will make a mistake if it does not develop its own hydro-electric resources.

Under separate cover we are forwarding publications that may be of value to you in this connection.

Yours very sincerely,
THE BRANTFORD CHAMBER OF COMMERCE.
W. H. WOOD,
Manager.

Sarnia, Ontario, Aug. 15, 1922.

Wm. J. Locke, Executive Secretary,
League of California Municipalities,
Pacific Building,
San Francisco, Calif.

Dear Mr. Locke:—

We have yours of August 5th asking for information in regard to the Ontario Hydro-Electric System.

Personally, after having lived here for

fifteen years and coming from New York State, and having witnessed the operation of the old steam system and the present hydro system in a large number of Canadian municipalities, I would say that the hydro system is a most decided success. For six months or more back there has been an endeavor to mix the hydro system up with politics which has not been, and which we all hope will not be, successful. To my mind the keynote of the success has been its isolation from politics.

I am sending you under separate cover copy of publication of the Department of Trade and Commerce of this year, called "Canada as a Field for British Industries." Please note marked passages on pages 80, 81, 85, 86 and 87. I am also requesting the Ontario Hydro-Electric Power Commission to forward you copies of their Bulletin, which should reach you shortly.

In reference to getting some ammunition for your reply to the private companies, I would suggested that you get in touch direct with Sir Adam Beck, to whose unceasing efforts and dogged determination the success of the Ontario Hydro-Electric Power System is due. You may reach him at 190 University Ave., Toronto, Ontario.

I would further suggest that could you induce Sir Adam to come to California and bring with him one of his engineers, you would be convinced, absolutely, of the soundness of his policies.

Anything further we can do to be of service to you, we shall be very pleased.

Cordially yours,
SARNIA CHAMBER OF COMMERCE.
GEO. P. FRANCE,
Manager.

Blenheim, Ont., Aug. 15, 1922.

Mr. W. J. Locke,
San Francisco.

Dear Sir:—

I am in receipt of your favor of 5th inst. inquiring for information in re the hydro-electric enterprise in the Province of Ontario. First, I might state that I am not drawing the matter too strong, in stating the prevailing opinion in our province is that our hydro project is an unqualified success. I am enclosing you the names and addresses of some men who will be able to give you information more fully than I could. Hoping that this may prove satisfactory to you, and that your efforts may be crowned with success, I remain

Yours truly,
GEO. TAYLOR.

Stratford, Ont., Aug. 16, 1922.

The League of California Municipalities,
Pacific Building,
San Francisco, Cal.

Dear Sirs:—

Replying to yours of August 5th, would say that the electric resources of the Province of Ontario are managed by the Hydro-Electric Power Commission.

I may say that I have never heard it mentioned that the hydro in Ontario was not a

success. Any criticism that there has been was principally political. I might state that our electric system has developed and increased by leaps and bounds, but there are some who think that Sir Adam Beck, who is the Chairman of the Hydro-Electric Power Commission, is stepping along too fast and getting beyond his depth. I am sure that the Hydro System has been a great boon to the people of Ontario, and any undue criticism is due to minor points in their policy management.

Yours very truly,

A. W. DEACON,
Secretary-Manager.

Parkhill, Aug. 15, 1922.

From Office of Municipal Clerk, Parkhill,
Ontario.

League of California Municipalities,
San Francisco, Cal.

Gentlemen:—

Your letter of the 5th inst. to hand and in replying to same would say as follows:

That our local Hydro System was installed by the Ontario Hydro Commission in the winter of 1919 and the spring of 1920 when prices of materials and labor were at their peak in this district.

Previous to our present system we were served by a private company giving a very limited service. The citizens voted to not renew this contract notwithstanding that it would mean being in darkness for one year anyway.

When we took the matter up with the Provincial Commission they felt that owing to high costs of installation coupled with our long distance from the Falls, nearly 160 miles, and being at what we call the tail end of the line, that the price of the rates to be charged to make the venture a paying one would make it prohibitive for our municipality.

Notwithstanding these serious discouragements the citizens voted unanimously for the necessary expenditure.

Now after two years of actual operation our rates have been twice reduced. We have taken up \$4,500 of capital expenditures from current earnings, and confidently expect that we will have a further reduction in 1923.

Yours truly,

FRED V. LAUGHTON,
Municipal Clerk, Town of Parkhill.

Hanover, Ont., Aug. 15, 1922.

League of California Municipalities,
Pacific Bldg.,
San Francisco.

Gentlemen:—

We are in receipt of your letter of 5th inst. regarding hydro-electric and in reply would say we believe that the Ontario plan of development of hydro-electric energy has been a great boon to the province. It is still in its infancy, and as time goes on should develop into a great asset to Ontario.

The Eugenia System, which supplies the town of Hanover with light and power, was installed in 1917 when materials were very high, and as a result we are not enjoying as

low rates as municipalities which have been hydro users for a longer period, but we expect the rates will be lowered from time to time.

We are mailing under separate cover the hydro-electric bulletin, which may prove of interest.

Yours truly,

HANOVER BOARD OF TRADE.

J. C. ENGEL,
Secretary.

Shelburne, Ont., Aug. 16, 1922.

League of California Municipalities,
San Francisco, Cal.

Dear Sir:—

Yours of 5th inst. received. I am one of the local Hydro Board and enclose a report so that you can see how we stood last year. We in this village pay a much higher rate than do other towns of similar size on other systems, but we are satisfied to do this as we are not paying any more now than under private ownership, and we are paying out for our system at the same time; that is, we will in twenty years have paid in our present rates sufficient money to pay for our share of the system.

The Niagara System has the cheapest rates because they are near the source of supply and have large manufacturing towns and cities on their system and some towns which are not so favored are so unreasonable that they think the rates ought to be uniform. This would not be at all fair as each power scheme is really a system in itself run at cost by the Central Hydro Commission for the benefit of that system. Our system showed a deficit last year, but this was due to power contracts given at too low a figure. This rate has since been adjusted and now the deficit is about wiped out.

Yours truly,

T. J. O'FLYNN.

Milverton, Ont., Aug. 16, 1922.

League of California Municipalities,
San Francisco, Cal.

Gentlemen:—

In reply to your letter of August 5th on the success of our hydro-electric system I may say that we are a village of about 1,050 population, and are enjoying the blessings of electricity supplied by our own municipally-owned and controlled system. It is really the greatest public utility boon that has ever come into our lives. In fact scores of small villages and towns would be without this great blessing if it were privately owned and the saddest day in our lives would be that on which we were called to give it up.

Yours truly,

MALCOLM MACBETH,
Secretary.

Woodville, Ont., Aug. 15, 1922.

Wm. J. Locke, Esq.,
San Francisco, Cal.

Dear Sir:—

Your communication of the 5th inst. to hand. Re hydro-electric resources.

In reply would say that we have been using hydro-electric power for about seven years, and have no hesitation in stating that our municipalities are well satisfied with the service and would not be without it for double the cost and as soon as we get our debentures paid, the cost will be reduced one-half or more. Our power was developed by the Hydro-Electric Commission of Ontario, whose engineers manage the whole system. I am quite satisfied that if your state embarks in the development of hydro-electric resources, you will be quite satisfied with the result.

I am yours,

A. E. STABACK,
Mayor, Woodville, Ont.

Alliston, Ont., Aug. 16, 1922.

Wm. J. Locke, Esq.,
Executive Secretary,
League of California Municipalities,
Pacific Building,
San Francisco.

Dear Sir:—

Replying to your favor of the 5th, re Hydro Power, I may say we would not want to be without it. It formerly cost the town about \$2,000.00 per year for coal to do the pumping. Under hydro its costs in 1920 were \$539.64, and in 1921 it cost \$584.76. For lighting the streets it formerly cost \$180.00 per month, it now costs \$161.00 per month, with more lights and run all night. Before they shut down at midnight, and in the winter started about 5 a. m. again and ran until daylight. We now have good service the full 24 hours, and they give it to us for lighting, in some cases less and in some cases more than it formerly cost under private ownership. As to the cost of power, the hydro people told us it would not cost us more than \$40.00 per H. P., but they have it up to \$60.00 at present, while in the larger places it is as low as \$15.00, I believe.

Yours very truly,

W. McBRIDE,
President, Board of Trade.

Welland, Ont., Aug. 16, 1922.

League of California Municipalities,
Pacific Building,
San Francisco.
Gentlemen:—

The story of the hydro development in this Province is a long one, but can be simplified by making the following statements:

In the year 1906, Welland which was then a town, had no electric power with the exception of a little local plant. Niagara Falls was then being developed at a distance of 12 miles from Welland. The writer and other citizens appealed in vain to the owners of the Ontario Power Company to build a line to Welland. The argument which the power company put up was that Welland was too far away from the source of the power, which was 12 miles, and there were no customers available at the end of the 12-mile line if they built one.

In the year 1918, only 12 years after, the Welland district had a peak load of about 100,000 H. P. with two separate individual

lines running direct from the power houses to the Welland transformer station.

The demand for power became so great during that period that the Province decided to take the matter over and not only develop the water power available to its fullest extent, but to sell power on the basis of cost. An Association of Municipalities was organized and the city of Welland was one of the charter members of this organization. We have enjoyed power at cost ever since this move was made, and the city has never yet been called upon to put up one dollar in the way of taxes or assessments. The plant has been self-sustaining from the start, and we think that we enjoy the cheapest power rate in the world owing to the fact that power is sold at cost with no profit to private corporations.

Yours very truly,

B. J. McCORMICK,
Industrial Commissioner.

Bolton, Ontario, Aug. 15, 1922.

William J. Locke, Esq.,
Secretary-Treasurer,
League of California Municipalities,
Pacific Building, San Francisco, Cal.

Dear Sir:—

In reply to your letter of August 5, re Hydro-Electric System, Province of Ontario, Canada, I have to advise that the Hydro-Electric System Plan of the Government of the Province of Ontario is successful. Of course, everything does not fit in like a button at present. There are many little details being worked out. Altogether, I repeat, it is a success. Private companies opposed the hydro here. Naturally, it was to their interest to do so. I presume for the same reason, private companies oppose your system in California. We have the hydro system in Bolton, and it gives good satisfaction. We pay more here than they do in Toronto. The extension causes that for the time, but in due time when the farmers take it up, which they will, it will become cheaper, as the more it is used the less it will cost. It is the installation of anything that costs at first.

Yours very truly,

LINCOLN HUTTON.

P. S.—Hydro was introduced in this village several years ago. There was a private plant in existence and we bought it out. Didn't have to, but it has been found, throughout the Province, wise to follow this system, but pay only what is reasonable.

Hamilton, Canada, Aug. 18, 1922.

Mr. Wm. J. Locke,
Executive Secretary,
League of California Municipalities,
Pacific Bldg.,
San Francisco, Calif.

Dear Sir:—

Replying to your letter of the 5th inst., we are aware that there is an organized propaganda in some quarters against the Ontario plan of government ownership of the electric resources of Ontario.

(Continued on page 277)

Murray Report Revealed as an Impotent Attack

Written for Purpose of Attempting to Discredit Hydro—
Is Full of Unjust Statements and Misrepresentations

BECK ISSUES REPLY

Engineer Employed by Private Power Interests Swept Aside Facts
That Would Have Destroyed His Arguments

Sir Adam Beck has issued a reply to the attack on Hydro contained in the Murray report in which he exposes the erroneous conclusions of the American engineer, and describes those conclusions as having been arrived at by "garbling of documentary data," "general misrepresentation," "unwarranted statements," "puerile dealing with economic subjects" and "unprofessional treatment of important technical data."

The Hydro Chairman makes it plain that the Murray report, which was prepared for the National Electric Light Association, which is a combination of private power companies in the United States, is nothing but an attempt to discredit the success of the municipally-owned hydro-electric system.

A fundamental weakness is revealed in that Murray describes the hydro as "Government ownership," whereas it is really co-operative municipal ownership and thus free of politics.

Another telling blow is dealt the attack on the matter of rates, by pointing out that hydro customers are paying for the plants as well as for the power, thus insuring that on the retirement of the bonds the people will be outright owners.

Lighting Costs.

An example of the inaccuracy as to rate comparisons is shown in replying to the comparison between Buffalo and Toronto. Sir Adam says:

"Mr. Murray, for example, states that in 1920 the street lighting cost per capita in the city of Buffalo was 60 cents, as compared with 67 cents per capita in the city of Toronto. Mr. Murray, however, does not inform his readers that in Buffalo more than one-half of the total number of street lights are gas or gasoline lamps, whereas in Toronto all the street lights are electric. The significance, of course, of this omission is that Mr. Murray has taken less than one-half of the total cost of street lighting in Buffalo and then compared it with the whole cost of all street lighting in Toronto. Had Mr. Murray used the figures necessary to effect a correct comparison, then he would have had to say that, in 1920, the total cost of street lighting per capita in Buffalo was \$1.15, and not 60 cents, as he has incorrectly stated."

Sir Adam says the report of Mr. Murray effects comparisons between "privately-owned" electric utilities and the Hydro-Electric Power Commission of Ontario, and purports to do so in an "impartial and exhaustive" manner. Information relating to the commission was unstintingly supplied to Mr. Murray and, as just intimated, portions of this data have been published by him in great detail. He, however, in his report, makes no attempt correspondingly to supply information respecting the private electric utilities.

With regard to the private com-

panies in the United States, Mr. Murray fails to designate adequately even the sources and limitations of much of the data which he has employed; while with respect to the private companies of Canada with which he compares the Hydro-Electric Power Commission, Mr. Murray, in response to a special request from the chairman of the commission, replied that the data of the private companies was given to him in "confidence," and that in this connection he must respect the restrictions imposed upon him.

He could not even submit the data to the commission, in order to assist it in going more fully into certain assertions published in his report. It will be appreciated, therefore, that although on the one hand the reader has available the detailed evidence relating to the operations of the Hydro-Electric Power Commission, nevertheless, on the other hand, he must content himself—if able to do so—with unsupported assertions made by Mr. Murray now known to be founded upon "confidential" and unpublished data of private interests.

Although Mr. Murray's report upon the face of it bears "ear-marks" of reliability and no expense has been spared to present it in attractive form, nevertheless, Mr. Murray makes incorrect statements and representations respecting the Hydro-Electric Power Commission of Ontario and its operations, which lead to conclusions at complete variance with the facts. It is desirable, therefore, that an authoritative statement be made which shall disclose the inherent unsoundness of Mr. Murray's report.

An examination of Mr. Murray's report shows that some eighty-five per cent. of its contents consist of information epitomized, or otherwise arranged by him from data supplied from the records of the Hydro-Electric Power Commission of Ontario.

Government Ownership.

In commending this discussion it should clearly be understood that the very title of Mr. Murray's report is misleading. The phrase "Government Owned and Controlled," in its usually accepted meaning—and especially as understood in the United States—conveys a significance radically different from any which can be attached to the operations of the Hydro-Electric Power Commission of Ontario. As commonly understood, "Government ownership" carries with it the conception of political domination in the appointment of officials and other employes and in the purchase of equipment and supplies and, in addition, the view that political manipulation may be impressed upon important phases of the operations in hand. As contrasted with such a political organization it may simply be stated that the hydro-electric enterprise of the municipalities in the province of Ontario is not "Government ownership." It is co-operative, municipal ownership working through the agency of independent commission control and administration, and is entirely removed from political interference.

There Is Distinction.

Mr. Murray has not emphasized as he should have emphasized, nor has he kept to the front, this fundamental distinction between "Government ownership" as generally understood, and co-operative municipal ownership as expressed in the constitution and work of the Hydro-Electric Power Commission of Ontario. Had this point alone been clearly brought out by Mr. Murray, he would have required to look elsewhere than to the Hydro-Electric Power Commission for his only illustration of a "Government Owned" electric utility. It was, however, vital to Mr. Murray's presentation that, by some means, he

should identify the undertaking of the Hydro-Electric Power Commission with Government ownership, in order that the stigma of Government ownership as commonly understood should be transferred to the unique, co-operative municipal-ownership undertaking of the commission and thus aid in casting discredit upon the achievements of the people of the province of Ontario who have directly assumed the financial responsibility of obtaining their hydro-electrical energy at cost.

When Mr. Murray is contending in his report that the Hydro-Electric Power Commission is clothed with an "unlimited" authority which makes it, as he charges, "the sole judge of its own acts," he purports to quote the Power Commission Act. In so doing, however, he expressly omits certain all-important, qualifying words in the earlier form of the Amending Act he employs. Thus the phrase:

"In respect of which authority is, by this act, conferred upon it." Is altered by Mr. Murray to read:

"In respect of that authority as by act conferred upon it."

By thus altering the wording of the act, Mr. Murray creates the false impression that the jurisdiction conferred by the particular portion of the act cited, relates to the operations of the commission as a whole, instead of relating as it does only to certain comparatively unimportant and special features covered by the provision of the act in question—that is, by this act.

Financially Sound.

The hydro chairman gives a summary of the financial structure of the hydro systems, stating:

(1) The generation and transmission of power on a wholesale scale is dealt with by the Hydro-Electric

Power Commission, which, although appointed by the Government, acts independently in the capacity of trustee and agent for the partnership of municipalities.

(2) The local distribution of electrical energy within the borders of a municipality is, in general, under the administration of a Public Utilities Commission.

(3) Capital required for plant for the generation and transmission of power is provided by the Government upon requisition by the commission. Contracts are entered into between the commission and the municipalities under the terms of which the municipalities undertake to repay in three years the moneys loaned by the Government.

(4) The local distribution system is financed by the issue of municipal debentures. These are current usually for twenty years.

At Actual Cost.

(5) The trustee commission supplies power at wholesale rates to the municipalities, charging each municipality at actual cost. To do this an interim charge is made monthly, based on the estimated cost and at the end of each year the account is adjusted.

"The cost of power" includes all the usual costs of operation and maintenance of the generating, transforming and transmission plant and equipment and, in addition, the annual interest charges on the moneys borrowed for the initial cost of installation, also provision for renewal, depreciation and sinking fund reserves, as well as special reserve fund, for contingencies.

Replacement Fund.

"The sinking funds are, of course, for the purpose of repaying at the end of a stated period—usually 20 or

30 years—the capital borrowed. The renewal reserve fund is for the replacement of plant which, either through wear, old age or the invention of better engineering devices, has become unsuited to perform its duties. As relatively little replacement of this nature is needed during the first year of operation of a plant, this renewal money is not immediately used, but is mostly held in reserve for future requirements, and in the meantime it draws interest. Contingency reserve makes provision for extraordinary or unforeseen demands arising from accidents, storms or similar causes. Thus, not only do the municipalities pay, as part of the cost of power, sums sufficient to assure for themselves a perpetual, modern and efficient service, but, in addition, their generating and transmitting plant, at the time of the maturity of the bonds, will be free of debt, and their electrical service costs will thenceforward be relieved of the interest and sinking fund charges which at present constitute a very considerable proportion of the wholesale cost of power.”

Profits Returned.

(6) Each municipality sells electrical energy to its own local consumers at rates and under conditions approved by the commission, which, in this respect, functions in a manner similar to the regulatory commissions in the United States. These rates are made sufficient to take care of the cost of distribution within the municipality and of the estimated cost of power to be paid to the commission by the municipality.

Foolish Comparison.

Mr. Murray compared the “cities of Toronto and Bolton,” situated at approximate equal geographic—although

at not equal transmission line—distances from Niagara Falls, as an example of rate discrimination. Speaking in round figures, Sir Adam puts Toronto’s population at 500,000 and that of Bolton at 675. Mr. Murray states that in 1919 the cost of power to Toronto was \$16.70 per horsepower, while that supplied to the village of Bolton was \$53.80 per horsepower. “Does Mr. Murray,” asks Sir Adam, “wish it inferred that power can, or should be, supplied to both these municipalities at the same rate, and that this would be the case were the supply furnished by a private company? In reality, the amount of power used by the village of Bolton, which is situated approximately 30 miles from the city of Toronto, was in 1919 less than 90 horsepower, and no private company would even have constructed lines to supply an electrical service to this village.”

Once again Sir Adam declares: “The hydro municipalities all recognize the inherent fairness of this plan of power at cost.”

Aid in War Production.

In replying to the Murray criticism of war costs in connection with the Chippewa Canal construction, Sir Adam says:

“Had Mr. Murray been living in the Dominion of Canada in 1917, he would perhaps have been in a better position to realize that at that time it was utterly impossible for human foresight to determine when the war would end, and on the part of all interested there was advocated the policy that there should be no slackening of any effort which would make toward the successful termination of hostilities. Every resource available to the citizens of Ontario was being utilized for the production of munitions and other war

supplies. The outstanding problem in this great effort was the insufficient supply of power * * * At this period the Hydro-Electric Power Commission furnished power for the operation of over three hundred and sixty plants manufacturing munitions and war supplies, and these plants were using over 80 per cent. of the entire power supply in the Niagara district."

Ignored Facts.

This information had been given to Mr. Murray, Sir Adam interjects, but he made no reference to the exceptional conditions, because such reference would not have fitted in with the general tenor of his report.

"During the war no such comment as Mr. Murray now offers in his report would have been tolerated in any of the countries of the allies," Sir Adam adds.

As to the cost of Chippewa power, he says that Mr. Murray presents estimates based upon his own hypotheses. In order to arrive at the cost he follows the self-same methods of misinterpretation, and where facts are a menace to his argument these, says Sir Adam, are swept aside. By a process of inflation he built up high estimated costs.

Inflated Figures.

"Of the ten items making up the cost of power from the Chippewa and Ontario power plants, there is not a single item which Mr. Murray estimates are in excess of the correct in the various items range from 20 to 1,000 per cent., and aggregate a total of over five million dollars. As in nine out of ten items Mr. Murray's estimates are in excess of the correct figures, they represent the future cost of power a great deal higher than it actually will be.

Extremely Remote.

"Some of Mr. Murray's mistakes," suggests Sir Adam, "may be explained as simple carelessness—as, for example, when adding up his items he made an error of \$30,000. When, however, two of his 'mistakes' are only a million and a half dollars each out of a corrected total of only \$7,200,000, the probability that such items have not wittingly been inflated becomes very remote.

"By such artifices as have been described Mr. Murray has estimated a total annual production cost for power of \$12,310,000, as against a corrected total under his own assumptions of \$7,200,000."

Less Than \$12.60 H. P.

"It is the judgment of the commission's engineers," says Sir Adam, "that the ultimate cost of Niagara power will be substantially lower than even the figure of \$12.60 which Mr. Murray supplies.

"Moreover, the cost of power from the Queenston-Chippewa development will be less than the cost of purchased power available at lowest present prices now quoted from the private companies at Niagara Falls."

Sir Adam concludes his reply with the statement that:

"Inasmuch as the 'Murray report' has been shown to be permeated by misrepresentations and unjust statements, it is, after all, seen to be one more of those impotent attempts which, from time to time, have been made to discredit the outstanding achievements of the co-operating hydro-electric municipalities in the Province of Ontario.

Lowest Rates in World.

"With regard to the charges for electrical energy made by the Hydro-Electric Power Commission, it is suf-

(Continued on page 274)



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The Essence of Americanism.

U. S. Senator Robert L. Owen of Oklahoma, one of the ablest men in the Senate, is one of the enthusiastic endorsers of the California Water and Power Act. In the course of a letter to former Congressman Kent, Senator Owen calls the Act "essence of Americanism."

Senator Owen speaks with authority. As Chairman of the Senate Finance Committee he was a powerful factor in the passage of the law under which the Federal Reserve Bank System of the country was built up. The Farm Loan Act was one of the products of his efforts. Senator Owen is a banker and is serving his third term in the Senate.

Here is his letter to Mr. Kent:

"I was glad to have the opportunity of examining California's Water and Power Act, proposed as a constitutional amendment. It is the essence of Americanism that the people of the nation, or of any state or city, use their political power and economic resources to conserve the greatest good to the greatest number.

"I am a strong believer in the rights of private property and of individual initiative. I am just as firm a believer in the right of the public to their property and of community initiative.

"Whenever, therefore, monopolistic corporate interests or utility companies

entrusted by law with quasi public function have used their privilege in a manner unsatisfactory to the people, it is the right of all good citizens to end the effects of such a regime by establishing institutions of their own making which will serve themselves. That is what America is for and the very best way to achieve advance without public unrest.

"Your proposed Water and Power Act I regard as a master stroke of statesmanship, clearly drawn, of sound finance, sensible methods, and which needs only the intelligence and will of your people to translate into a pronounced success. The principle upon which it is based has been successfully applied in our own country and other lands.

"The measure is further entitled to confidence because it was prepared by, and has the support of, a group of citizens whose high character, disinterested motives, and years of service in the public welfare, entitle their proposals to receive the confidence and respect of all good citizens.

"You have my best wishes for your success at the November election, believing, as I do, that in winning this victory for the people of California you are also blazing the way for the people of the whole nation."

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Los Angeles Aqueduct Builder Endorses Water and Power Act.

Mr. Mulholland, the man who built the great aqueduct that solved the water problem of Los Angeles and furnished the city with cheap power, says:

"I am unreservedly for California's Water and Power Act. It is practicable and workable. It will not bring upon us a burden of taxation. It will stop the alienation from the people of their priceless heritage in the water power resources, and that is the chief reason why I shall vote for it.

"It is this alienation of ownership that is my greatest objection to the present method. If we continue to follow it, the ownership of this natural resource and of the public utility it produces will pass away from the people altogether and will go to absentees, who will have no other interest than to milk it.

"Public ownership of water power, as a master resource, is the very opposite of communism. Private monopoly of our water power tends to impede and destroy individualism in all phases of production, public ownership protects and promotes that individualism."

Did You Ever Stop to Think?

That the city that gets the publicity gets the business.

That the city that gets the advertising grows.

That advertising a city is a business, not child's play.

That people will go miles to get a good live city to trade.

That your property will increase in value when the outside world knows your city is wide-awake.

That people from neighboring cities will come where there is something doing.

That the city which does not seek something better than it now has, is going to lose out.

That now is the time your city and business need advertising more than ever before.

That if you don't get out and go after the trade, some neighboring city will.

That if they do, they will get the business you should get.

—Norton Telegram.

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Loose Leaf Record of Bond Assessments.

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Municipal Supplies
SAN FRANCISCO

What Cement is Doing to Help Reduce Fire Hazards.

Fire losses in the United States in 1921 were more than half a billion dollars.

Fire loss adjustments made by insurance companies in the United States and Canada during the past fourteen years amounted to \$3,410,752,600. The average yearly loss was \$243,625,200. The loss for 1920 was \$330,853,925.

Losses from fire in the United States average \$3 per capita per year. France has a per capita loss of 49 cents; Great Britain, 33 cents; Germany, 28 cents, and Holland, 11 cents.

During the past fourteen-year period our fire losses were 28.1 per cent of the value of new building construction. In 1920, although an abnormal amount of building was done, the fire losses were 23.5 per cent of the value of new buildings.

Startling as these losses are, they do not tell the whole story. They represent only the actual insurance adjustments made. They do not take into account losses due to the fact that buildings are seldom insured for more than 80 per cent of their full value, nor do they include losses not covered by insurance. The insurance adjustments made probably do not exceed 70 per cent of actual fire losses, including both insured and uninsured.

The surest safeguard against loss by fire is a building so constructed it cannot burn.

Reinforced concrete represents the highest type of fire-resistive construction. Concrete

is practically maintenance free. Concrete grows stronger as it grows older.

Concrete homes are protecting the American family from the dangers of fire.

Concrete apartments, hotels, office buildings and factories, house thousands of workers in our cities. In these, concrete has reduced the danger from fire to a minimum.

Concrete construction is a means of reducing fire insurance premiums.

If there is any building that should be made absolutely fire-safe it is the schoolhouse.

In the United States a fire occurs every day in some school.

In a properly planned school building, in which concrete has been consistently used throughout, fires of dangerous proportions are practically impossible.

The Portland Cement Association constantly co-operating with all established agencies concerned with the problems of fire prevention.

The Association has engineers who confer constantly with builders and architects with a view to eliminating fire hazards.

Aiding the work of fire prevention is typical of the daily service of the Portland Cement Association.

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CONTRACTS AWARDED FOR THREE SECTIONS OF STATE HIGHWAY

The California Highway Commission awarded three contracts August 15, 1922, as follows:

PLUMAS AND LASSEN COUNTIES

1. Contract for a total of 11.31 miles of highway, from Chester Grade to N. E. $\frac{1}{4}$ of Sec. 3, T. 28 N., R. 9 E., M. D. B. & M., to be graded, was awarded to the Isbell Construction Company, Fresno, California, on a bid of.....\$116,227.50
 Engineer's estimate..... 114,721.50
 Plus material furnished by the State 3,181.78
 Making total cost.....\$119,409.28

SANTA CLARA COUNTY

2. Contract for 4.34 miles asphalt concrete surface, between Carnadero Creek and Southerly Boundary, was awarded to Clark & Henry Construction Co., Stockton, Calif...\$ 28,340.00
 Engineer's estimate..... 29,350.00
 Plus materials furnished by the State 20,248.30
 Making total cost.....\$ 48,588.30

VENTURA COUNTY

3. Contract for 3.3 miles grading from Hueneme Road to a point $3\frac{1}{4}$ miles Southwesterly, was awarded to George Pollock Co., Sacramento, Calif., on a bid of...\$ 33,640.00
 Engineer's estimate..... 26,047.50
 Plus materials furnished by the State 1,912.96
 Making total cost.....\$ 35,552.96

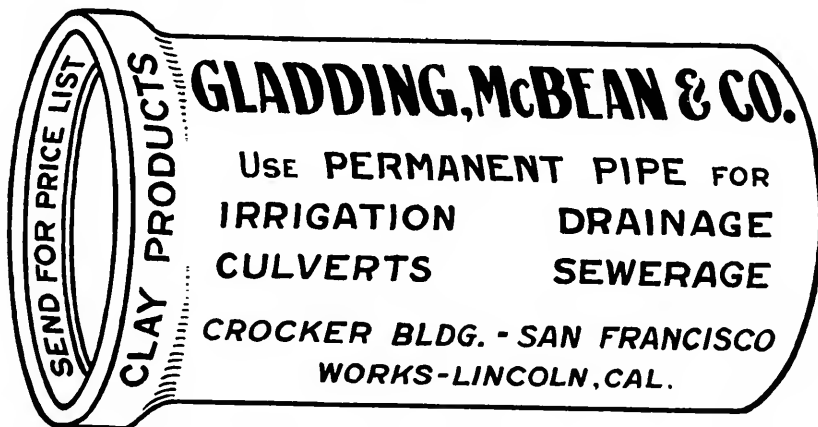
TRUCK OVERLOADING REDUCED

The Traffic Regulation Squad of the California Highway Commission under the direction of Major C. L. J. Frohwitter is making gratifying progress in reducing the number of truck overloads which are so detrimental to the highway paving. It has been observed in sections in which the regulation inspectors have been operating, that damage caused by overloading has been greatly lessened thereby reducing the cost of maintenance.

Some of the larger truck company managers realize that overloading and improper tires destroy the roads thus making the operation of their trucks in an efficient, profit-making way very difficult if not impossible, and are co-operating with the inspectors. One of the largest truck companies in Southern California is sending loadmeters to all of their traffic superintendents in Los Angeles, Kern; Tulare and Fresno counties to insure the proper loading of their trucks thus avoiding chances for delay due to shifting of overloads, and the possibility of a fine. This co-operation enables the regulation squad to intensify their campaign against the truck operators who persist in disregarding the rules enacted to preserve the roads.

PLACER AND NEVADA COUNTY CONTRACT

Contract was awarded the Security Bridge Co., Ogden, Utah, for bridge across the Bear River between Placer and Nevada Counties, on a bid of \$28,250.50, plus material furnished by the State, value \$3,570.00, making total cost \$31,820.50. Estimate of California Highway Engineer was \$35,630.



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 tell them so.

(Continued from page 257)

ficient to state that the factors german to the cost of power are published in the annual reports of the Commission. No other hydro-electric power organization publishes an annual report presenting anything like the amount of classified, detailed information contained in the Commission's reports. All such data is separately audited and approved by auditors independently appointed by the Government of the province. Had Mr. Murray been just in his employment of even the data which he has utilized, and had he used ordinary discretion in selecting comparable data from other sources, he could never have reached the fallacious conclusions he has published, but on the contrary he would have found that the rates for light and power throughout the hydro system in Ontario are cheaper than for like service elsewhere in the world.

"For lighting alone, the over 300 municipalities now enjoying their hydro

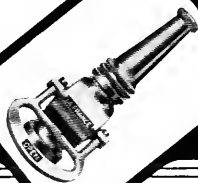
service have, during the period of operation, saved through reduction of rates approximately \$60,000,000 over what would have been the cost under rates prevailing before their undertaking was initiated."

(Toronto Evening Telegram, Aug. 11, 1922.)

EDITORIAL COMMENT ON THE REPLY OF SIR ADAM BECK.

Mr. Murray's Boomerang.

The attack on the Ontario municipalities' hydro-electric partnership made by Mr. W. S. Murray for the American power ring has produced a reply from Sir Adam Beck that completely discredits the report of the American expert. In making his attack Mr. Murray stated that he had never been in favor of government ownership, which appears to be the most accurate statement in his report. Mr. Murray does not bother to point out that the hydro is public



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Easy to operate. Will not get out of order. Large handle allows operator to grip it with his entire hand. Made of manganese bronze. Cannot be broken. When nozzle is shut, hose can be dragged down a ladder without danger of turning it on.



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ownership by municipalities and not public ownership by government.

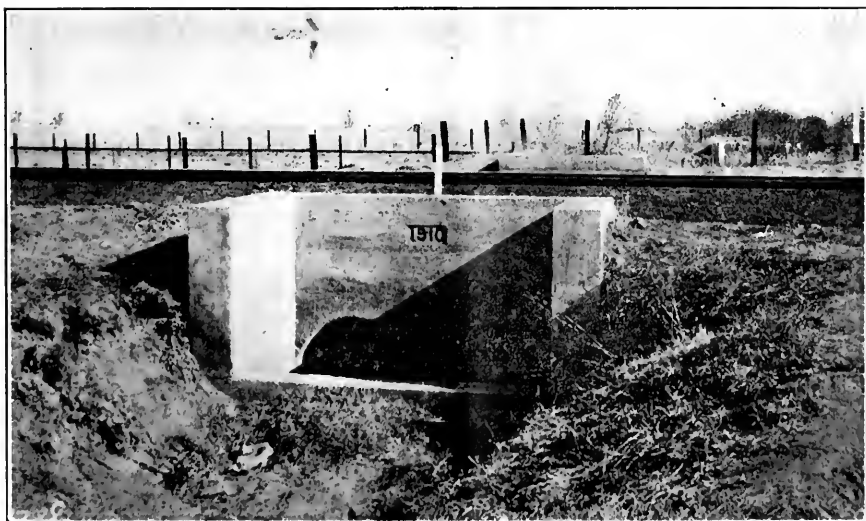
The charge of discrimination is easily met. Bolton is not a city, but a village of 675 persons. Toronto has a population exceeding half a million. Bolton is thirty miles from the city. It consumes only 90 horsepower, as against more than 50,000 h. p. by the hydro customers in Toronto. Bolton's rates are comparatively high because of the small amount of power which has to stand the cost of the local transmission and distribution lines. But it gets power and gets it at cost. With electrical development entirely under private management, the kind that Mr. Murray favors, Bolton would have to go in darkness or use candles or steam-generated power costing \$100 per horsepower. No company in the world would dream of bothering to give current to such a place as Bolton. Only the hydro goes out of its way into small places to give service. That is a pointer for

the small communities in California.

There is one consideration that Mr. Murray and others of his kind are apt to overlook when dealing with public ownership as represented by the hydro, and that is that the power rates, whatever they may be, not only pay for the power, but for the plant which, after a 30-year period, will become the property of the customers. Here in Toronto we are getting domestic lighting at 2.22 cents per kilowatt hour, as against 3.24 cents in Buffalo. But if we were not also acquiring the plant and earning a surplus the rate could be reduced by 1.6 mills per kilowatt hour.

The stories about hydro being circulated by the electric ring in the United States are menadacious as well as malicious. One advertisement in the Review of Reviews showed a picture of Niagara Falls upside down and intimated that it was almost tragic that Ontario, with Niagara Falls at its doors, should be deprived of cheap power by

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LOS ANGELES

WEST BERKELEY

the public ownership scheme. But the object of that lie was to prevent the people of California, the New England States, and other parts of the adjoining republic from moving to obtain cheap, efficient and fair service from their own power plants rather than leave themselves to the mercy of a profit-seeking and none too scrupulous or merciful power monopoly.

(From Toronto Daily Star, Aug. 12, 1922)

Hydro and Murray Report.

Some time ago the National Electric Light Association of the United States commissioned Mr. W. S. Murray and Mr. Henry Flood to make a report on the electric utility systems as operating in the United States, and the corresponding operations in Ontario under control of the Hydro-Electric Power Commission. The result was a report which, it is said in a reply by the Hydro Commission, summarized in today's issue,

"contains incorrect statements and representations respecting the Hydro-Electric Commission of Ontario and its operations which lead to conclusions at complete variance with the facts."

It is charged that from the beginning to the end of his report Mr. Murray has been "inexcusably inaccurate when dealing with data of fact," and that "when he undertakes to deal with hypothetical factors involving future circumstances he transgresses sound procedure in a manner even more indefensible."

The rejoinder to the Murray report does not deal in hypothetical figures. It shows that Ontario, in the Chippewa plant, has an asset that is already of great value, and that in the years to come will give the people of the Niagara zone light and power at rates far below those levied by private power monopolies within corresponding areas across the border.

(From the Toronto Globe, Aug. 11, 1922.)

"Gilmore"

Oak Grove Ave., San Marino, Calif.
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The total cost of a 24 ft. pavement on this basis (for the nine years) is \$316.80 per mile per year—less than the upkeep on the average pavement, and it is good for another nine years or more with little, if any, maintenance or repairs.

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that outlive their bonds





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OIL PRODUCERS, REFINERS AND MARKETERS
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 LOS ANGELES—CALIFORNIA

(Continued from page 262)

While we have not agreed with all that has been done, I think that you will find that the general opinion in the Province is that the development has been of tremendous value.

Like all matters of this kind there has been a good deal of controversy as to the costs being higher than they should be and possibly in some instances this is true. At the same time I am convinced that we are getting cheaper power than would otherwise have been possible. The system has been of great value in assisting in the development of various towns and cities which otherwise could not have progressed, and has been of advantage not only to the urban districts, but to a great many of the rural districts into which it has been extended.

I would also suggest that you write the Hydro-Electric Power Commission of Ontario, Toronto, Ontario. This is the only body in charge of the development. They will be glad to send you reports giving full particulars.

Yours faithfully,

F. P. HEALY,
Managing Secretary.

Creemore, Aug. 16, 1922.

Wm. J. Locke, Esq.,
Secretary-Treasurer,
League of California Municipalities,
Pacific Building,
San Francisco, Cal.

Dear Sir:—

In reply to your letter of the 5th of August, re the Ontario Hydro-Electric System, I beg to say that this system is controlled by the Government and is proving quite satisfactory. The service is about the best possible, though some of the outlying municipalities find the rates a little higher than they would like, but there is certainly no discount on the service rendered.

The power is obtained from the different water powers throughout the country, and divided into local systems, consisting of different municipalities, and the cost of the power obtained is charged to each municipality, and charged at cost only. I would say that the present system is proving quite satisfactory here.

Trusting this will be satisfactory,

Yours truly,

JOHN M. HOOD,
Secretary Creemore Hydro-Electric Com.



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California Improvement Proceedings

CONSULTATION DESIGN INSPECTION

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Los Angeles, Cal.

Hagersville, Ontario, Aug. 17, 1922.

Wm. J. Locke, Esq.,
Secretary,
League of California Municipalities,
San Francisco.
Dear Sir:—

I am in receipt of your letter of the 5th inst. re our Hydro System, and in reply would say that our system was installed about eight years ago, and has been most successful from its inception. One great asset is satisfied customers. We have around 300 using the hydro and a complaint is rare, and customers know that if a surplus is accumulated it is used for the benefit of our local system, and not put in the pockets of a few stockholders. Our rates to consumers were reduced last year, yet after paying all expenses, including \$11,754.85 for power, \$2,566.70 for operation, maintenance and debenture charges and allowing \$708.00 for depreciation, we had a surplus of \$3,014.80. We consider this a satisfactory financial record for a village of 1,200 population. In my opinion not only our system, but the Ontario system as a whole is proving very successful.

Yours truly,

J. T. PARK,
Secretary and Clerk of Village.

Lambeth, Ontario, Aug. 15, 1922.

California Municipalities,
San Francisco, Cal.
Dear Sirs:—

In reply to your letter of the 5th inst., re the success of our hydro system in the village of Lambeth.

Lambeth is not a very large village, only about three hundred inhabitants, so you see we cannot go ahead with our system making money in leaps and bounds, but we are meeting with success.

The village has ninety-two domestic users and twenty-one commercial users and one power user. Our domestic service; that is, resident consumption charge, comes at 3c, 6c, 2c. The three-cent rate is called service charge or meter rent. Every house is measured and three cents per hundred sq. ft. is the charge. On a house which has 1,600 sq. ft., service charge would amount to 48c per month.

The six-cent rate is for the hours one burns. Six cents per hour is charged for so many hours. If a person was to burn, for instance, in the 1,600 sq. ft. house he would pay six cents for forty-eight hours, and two cents per hour for all electric energy consumed over that amount.

The commercial rate is 12c, 6½c per k. w. hour. In commercial lighting we go through stores and shops taking number of watts in each establishment. Then to 30 hours' use of that number of watts and charge 12c per k. w. hour. The next is 70 hours more of the same number of watts at 6c per k. w. hour. All exceeding this amount is bought at ½c per k. w. hour.

WATER METERS THE TYPE K NASH DISC METER

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Power is sold at 187 k. w. hour at 5.4c—50 hours use of load. Second 50 hours use of load 87 k. w. hour at 3.6c.

All others at 15c per k. w. hour. This estimate is on a five h. p. motor; and \$1.00 per h. p. service charge.

The revenue from the village per month is about \$240.00, expenses amount to \$170.00 on average per month. Up to the present it has proven to be very successful for seven years of patronage. We have two thousand dollars of our own money in the bank.

The consumers are increasing quite rapidly in the village, not so much in new consumers but the former ones installing electric stoves, which has never been done until the present. Each new stove we have added to our system will increase that consumer's bill to three times what it was before. In three more years Lambeth will be much further ahead as conditions around us here have improved so much in the last year, and the village is beginning to increase, there is a hopeful future in sight for us. If the hydro system carries on as it has in the past few years it will be a great success.

Any further information that I may be able to forward to you I will be delighted to do so at any time.

Yours respectfully,
LIONEL E. L. DAVEY,
Sec.-Treas. Lambeth Hydro E. S.

Durham, Ont., Aug. 19, 1922.

Gentlemen:—

The Ontario Hydro System of Electrical Development is undoubtedly a good system in that all sections are served and power is de-

veloped thoroughly. The cost is the only kick. The price at which we were promised light has now advanced to about five times, and power likewise, but it is expected to come back some day to much cheaper. The service is excellent, wind and sleet play havoc with lines, but power is soon on again. Write Reeve Calder, Mayor Allan, Rob Roy Mills, Durham Furniture Co., Clarke Metals and ex-Mayor Grant, J. E. Russell Co., all of Durham, Ont.

E. A. HAY.

Chatham, Ontario, Aug. 19, 1922.

Mr. Wm. J. Locke,
Executive Secretary,
League of California Municipalities,
Pacific Building,
San Francisco, Calif.
Gentlemen:—

We are in receipt of your letter of August 5th, and are very glad to give you this information indeed.

There is no doubt in the world but what our Hydro-Electric Power Commission of Ontario has been and will be of untold advantage to the citizens of the Province of Ontario. A splendid illustration has been given before and is now being experienced in regard to the shortage of coal. More than once during recent years have manufacturers been able to work full force when it would not be possible to get sufficient quantity of coal and were able to get the required power from hydro.

Our rates are much lower than they have been before and as consumption increases, the price will be lower. Our cities are better lighted and this particularly applies to our

PIPE TANKS CULVERTS

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For QUALITY buy "WESTERN"

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own city. The service is being greatly extended to the farmers and we are all looking forward to the time when electricity can be furnished freely to those living in the country.

There may be some difference of opinion when it comes to the operation of radial lines parallel or following closely steam roads.

I would suggest that you write to Mr. P. S. Coate, who is President of our Chamber of Commerce and manager of the Chatham Gas Co., who distributes natural gas throughout the city and formerly furnished the city with power and light, but Mr. Coate told me yesterday when I showed him your letter that hydro put them out of business, so far as electricity is concerned, but he had nothing but praise for the Hydro-Electric Power System.

You are quite free to write to Mr. Coate. I would also suggest that you write to Robert Gray, President of the Gray-Dort Motors, Ltd.; Mr. C. A. Glock, local manager of the International Harvester Co.; Mr. W. D. Robertson, manager of the Canada Flour Mills; Mr. C. H. Houson, manager of the Dominion Sugar Co.; Mr. S. Stephenson, proprietor of the Planet Publishing Co.

I would also suggest that you write to the Ontario Hydro-Electric Power Commission, 190 University Avenue, Toronto, Ont., and be placed on their mailing list, as they get out a splendid little booklet monthly. We are mailing you last month's issue.

The private companies of course will oppose our system here, but it will grow and expand and it will only be in isolated cases where private companies will ever be brought into being.

Hydro-electric operates in a dozen different parts of Ontario, wherever water power is available. The system will no doubt be extended, and the Province will be completely covered with the network of hydro wires.

Yours truly,

THE CHATHAM CHAMBER OF COMMERCE.
W. R. LANDON,
Manager.

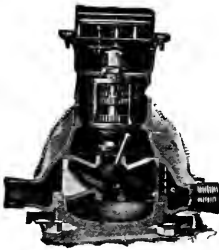
London, Canada, Aug. 19, 1922.

League of California Municipalities,
Pacific Building,
San Francisco, Cal.
Gentlemen:—

With reference to copy of circular letter dated August 5th to the Secretary of the Chamber of Commerce which has been handed to us, we are sending you under separate cover copies of our annual reports for 1919-20-21. If there is any further information you would like we would be very glad to furnish it. Municipal ownership has been a decided success in this community.

Yours truly,

PUBLIC UTILITIES COMMISSION.
E. V. BUCHANAN,
General Manager.



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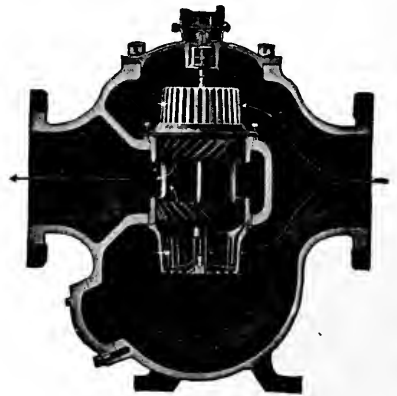
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Pacific Municipalities

AND COUNTIES

A Monthly Review of Municipal Problems and Civic Improvements
OFFICIAL ORGAN OF THE LEAGUE OF CALIFORNIA MUNICIPALITIES

OFFICIAL PROGRAM

Twenty-fourth Annual Convention

League of California Municipalities

Stanford University, September 19-23, 1922

LEADING ARTICLES IN THIS ISSUE

**PROGRAM, TWENTY-FOURTH ANNUAL CONVENTION OF THE LEAGUE
OF CALIFORNIA MUNICIPALITIES.**

VITAL FACTS ON PORTLAND CEMENT.

By John E. McEldowney

CALIFORNIA'S WATER AND POWER ACT.

By William J. Locke

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Loose Leaf Bond Record and
Bond and Coupon File Book.



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OFFICIAL ORGAN OF THE LEAGUE OF CALIFORNIA MUNICIPALITIES

Entered as second-class matter March 22, 1913, at the Post Office at San Francisco, California,
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VOL. XXXVI TWENTY-FOURTH YEAR No. 9

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San Francisco, California

September 1922

NOTICE—Every city belonging to the League of California Municipalities is entitled to a copy of this magazine for each of its officials without extra charge. If not received kindly notify the Secretary.

A. Carlisle & Co., Printers, San Francisco

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LEAGUE OF CALIFORNIA MUNICIPALITIES

Organized 1897

Affiliated with the Bureau of Municipal Reference, University of California

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Executive Secretary, WM. J. LOCKE
Headquarters: Pacific Building, San Francisco
Official Printers: A. Carlisle & Co., San Francisco

INFORMATION BUREAU

The League of California Municipalities maintains in connection with the Secretary's Office, a Bureau for furnishing city and town officials with information on municipal affairs, and loaning copies of new ordinances and specifications. Officials are urged to make a free use of this Bureau. Kindly send a self-addressed stamped envelope in all cases.

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Colusa	Hillsborough	Nevada City	San Francisco	Watts
Concord	Hollister	Newman	San Gabriel	Wheatland
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Corning	Honolulu	Oakdale	San Jose	Willits
Coronado	Huntington Beach	Oakland	San Leandro	Willows
Compton	Huntington Park	Oceanside	San Luis Obispo	Woodland
Corona	Hyde Park	Ojai	San Marino	Yuba City
Covina	Imperial	Ontario	San Mateo	Total - 241

Every Incorporated city and town in California should be on the above membership roll

Pacific Municipalities

AND COUNTIES

OFFICIAL ORGAN OF THE LEAGUE OF CALIFORNIA MUNICIPALITIES

Entered as second-class matter March 22, 1913, at the Post Office at San Francisco, California, under the Act of March 3, 1879.

PROGRAM

of the

Twenty-fourth Annual Convention

of the

LEAGUE OF CALIFORNIA MUNICIPALITIES

to be held at

STANFORD UNIVERSITY AND PALO ALTO

in conjunction with the

SECOND WESTERN SUMMER SCHOOL OF COMMUNITY LEADERSHIP

SEPTEMBER 19 - 22, 1922

TUESDAY, SEPTEMBER 19, 1922

Encina Hall, Stanford University

8 to 10 A. M.

REGISTRATION AND ASSIGNMENT TO ROOMS

IMPORTANT NOTICE**TO ALL SPEAKERS****THIS CONVENTION WANTS IDEAS, NOT WORDS**

In order to secure the full benefit of our annual meetings, it is absolutely necessary that the leading speakers condense their ideas in the fewest possible words, for the reason that the greatest value is derived from the discussions which follow.

Speakers are requested not to read from manuscript, but talk from notes.

Each leading speaker may submit a typewritten copy of his address to the reporter, in the form he desires it to be published, but unless the matter be of unusual importance, leading speakers should not consume more than fifteen minutes in introducing the subject.

PRESIDING OFFICERS WILL ENFORCE THIS RULE STRICTLY.

TUESDAY MORNING, SEPTEMBER 19, 1922

9:00 to 10:00, Moving Pictures

10 o'Clock A. M.

ASSEMBLY HALL

OPENING OF THE CONVENTION.....	Hon. Louis Bartlett, President of the League.
WELCOME BY.....	Hon. A. M. Cathcart, Mayor of Palo Alto. President Ray Lyman Wilbur, of Stanford University. President C. H. Steere, of Palo Alto Chamber of Commerce.
RESPONSES BY.....	Hon. S. C. Evans, Mayor of Riverside and former President of the League; and Roscoe D. Wyatt, President California Commercial Secretaries Association.

11 o'Clock A. M.

ADDRESS—PUBLIC HEALTH.....	Dr. Ray Lyman Wilbur, President of the American Medical Association.
----------------------------	----------------------------------------------------------------------

LUNCHEON

12:15 o'Clock P. M.

REPORT OF THE EXECUTIVE SECRETARY.....	William J. Locke.
REPORT OF THE SECRETARY-TREASURER.....	H. A. Mason.
REFERENCE TO THE AUDITING COMMITTEE	

1:00 to 1:30, Moving Pictures in Assembly Hall

1:30 o'Clock P. M.

JOINT SESSION CONTINUED

Excepting City Attorneys

1:30 o'Clock P. M.

BUDGET EXPERIENCE OF CALIFORNIA CITIES.....	William Dolge of San Francisco.
---------------------------------------------	---------------------------------

TUESDAY, SEPT. 19

2:15 to 3:05 o'Clock P. M.

PROBLEMS OF A CITY MANAGER.....Clyde L. Seavey, City Manager
of Sacramento.

3:15 to 4:05 o'Clock P. M.

MUNICIPAL CHARTERS IN THE MAKING.....Wm. J. Locke, Executive Secre-
tary of the League.

4:15 to 5:05 o'Clock P. M.

ALAMEDA'S BOARD OF SOCIAL SERVICE AND CITY
HEALTH CENTER.....Beulah E. Spunn of Alameda.

1:30 o'Clock P. M.

DEPARTMENT OF CITY ATTORNEYS

Norman E. Malcolm, presiding

DESIRABLE NEW LEGISLATION FOR MUNICI-
PALITIESHon. D. J. Hall, City Attorney of
Richmond.

RECENT COURT DECISIONS OF INTEREST TO
MUNICIPALITIESGeorge L. Hoodenpyl, City At-
torney of Long Beach.

TUESDAY EVENING

5:30 o'Clock P. M.

BARBECUE UNDER THE AUSPICES OF THE CITY OF PALO ALTO
AND STANFORD UNIVERSITY
IN THE GROVE NEAR STADIUM AND UNION HIGH SCHOOL

WEDNESDAY MORNING, SEPTEMBER 20, 1922

DEPARTMENT OF COUNCILMEN, CITY MANAGERS,
ENGINEERS AND STREET SUPERINTENDENTS
IN ASSEMBLY HALL

9 o'Clock A. M.

George H. Hinckley of Redlands, presiding

GARBAGE COLLECTION AND DISPOSAL.....C. E. Hickok, City Manager of
Alameda.

10:10 to 11 o'Clock P. M.

MUNICIPAL DEVELOPMENT.....B. M. Rastall, Consultant, San
Francisco Chamber of Com-
merce.

11:10 to 12 o'Clock P. M.

GETTING RESULTS IN CITY PLANNINGCharles H. Cheney, Long Beach.

DEPARTMENT OF CITY ATTORNEYS

and

DEPARTMENT OF CLERKS, AUDITORS AND ASSESSORS
IN JOINT SESSION

9 o'Clock A. M.

Norman E. Malcolm of Palo Alto, presiding

WHAT SHOULD GO INTO THE MINUTES?.....Wm. E. Varcoe, City Clerk of
Alameda.

A MODEL TAX ORDINANCE.....J. W. Coleberd, City Attorney of
South San Francisco.

BOOKKEEPING REQUIRED UNDER THE IMPROVE-
MENT BOND ACT OF 1915.....Charles L. Biebel, City Clerk of
Daly City.

WEDNESDAY, SEPT. 20

12:15 o'Clock P. M.

ADJOURNMENT FOR LUNCHEON

Immediately preceding luncheon a photograph of the delegates will be taken in front of the church by E. R. Freeman of Palo Alto

WEDNESDAY AFTERNOON, SEPTEMBER 20, 1922

ENTIRE BODY, MEETING IN ASSEMBLY HALL

1:15 to 2:15, Moving Pictures

Hon. Louis Bartlett, presiding

APPOINTMENT OF COMMITTEE ON RESOLUTIONS

2:15 to 3:05 o'Clock P. M.

PROPORTIONAL REPRESENTATION.....Cameron H. King of San Francisco.

THE PROPOSED ELECTRIC RAILWAY FRANCHISE
AMENDMENTFred E. Reed, President of the California Real Estate Association.

**REPORT OF THE COMMITTEE ON THE FOLLOWING PROPOSED
CONSTITUTIONAL AMENDMENTS:**

- (1) The amendment to require street railway franchises to be granted by the Railroad Commission instead of local authorities.
- (2) The amendment to require publicly owned public utilities to be regulated by the Railroad Commission.
- (3) The amendment to require publicly owned public utilities, except water works, to pay taxes.

WEDNESDAY EVENING, SEPTEMBER 20, 1922

ENTIRE BODY, WITH HEALTH OFFICERS, MEETING IN ASSEMBLY HALL

7:00 to 8:00 P. M., Moving Pictures

8 o'Clock P. M.

Hon. Louis Bartlett, presiding

WHOLE TIME COUNTY HEALTH DEPARTMENTS
FROM AN ECONOMIC VIEWPOINT.....Dr. W. M. Dickie, Secretary of the State Board of Health.

ADVANTAGES OF COUNTY, STATE AND MUNICIPAL CO-OPERATION IN BETTER LOCAL
HEALTH GOVERNMENT.....Dr. J. L. Pomeroy, County Health Officer, Los Angeles County.

COUNTY HEALTH ORGANIZATION UNDER DISTRICT HEALTH ACT.....Dr. William Friedberger, Superintendent, San Joaquin County Hospital.

DISCUSSION

THURSDAY MORNING, SEPTEMBER 21, 1922

DEPARTMENT OF COUNCILMEN, CITY MANAGERS, ENGINEERS
and

STREET SUPERINTENDENTS

and

DEPARTMENT OF CITY ATTORNEYS
IN JOINT SESSION, IN ASSEMBLY HALL

9 o'Clock A. M.

George H. Hinckley, presiding

THURSDAY MORNING, SEPT. 21

PALO ALTO'S STREET WORK PROCEDURE.....J. F. Byxbee, Jr., City Engineer
of Palo Alto; Norman E. Mal-
colm, City Attorney of Palo
Alto.

10:10 o'Clock A. M.

THE PUBLIC OFFICIAL AND THE PRESS.....Chester H. Rowell, State Rail-
road Commissioner.

LEGAL POINTS THAT ENGINEERS AND COUNCIL-
MEN SHOULD KNOW.....Charles N. Kirkbride, City At-
torney of San Mateo.

A MODEL BUILDING ORDINANCE.....Albert Mansfield, City Attorney
of Redwood City, and C. W.
Mitchell of the Board of Fire
Underwriters of the Pacific.

12:15 o'Clock P. M.**LUNCHEON****LUNCHEON ADDRESS**

THE CITY ATTORNEY.....Jess E. Stephens, City Attorney
of Los Angeles.

THURSDAY AFTERNOON, SEPTEMBER 21, 1922

Entire body League of California Municipalities meeting in the Community Center,
Palo Alto, with the Commercial Secretaries as guests.

1:00 to 1:30, Moving Pictures**1:30 o'Clock P. M.**

President Louis Bartlett, presiding

THE BOULDER CANYON PROJECT.....E. F. Scattergood, Chief Electri-
cal Engineer of Los Angeles.

2:30 o'Clock P. M.

CALIFORNIA'S WATER AND POWER ACT—

FOR THE ACT.....Rudolph Spreckels, of San Fran-
cisco.

AGAINST THE ACT.....Allison Ware, of Chico.

SELECTION OF THE NEXT PLACE OF MEETING**ELECTION OF OFFICERS****THURSDAY EVENING, SEPTEMBER 26, 1922**

The different departments of the League will meet in their respective quarters,
dispose of unfinished business and elect department officers for the ensuing year.

7:00 to 8:00, Moving Pictures**8 o'Clock P. M.****REPORT OF AUDITING COMMITTEE****REPORT OF COMMITTEE ON RESOLUTIONS****FILM DEMONSTRATION IN ASSEMBLY HALL****WATER DEVELOPMENT IN SACRAMENTO, SAN JOSE, LOS ANGELES
AND SANTA ROSA****FRIDAY MORNING, SEPTEMBER 22, 1922****ENTIRE BODY, IN ASSEMBLY HALL****9 o'Clock A. M.****UNFINISHED BUSINESS****10:10-11:00 o'Clock A. M.**

RELATIONS BETWEEN CITY OFFICIALS AND
CIVIC SECRETARIES.....C. A. Dyksta, Secretary Los An-
geles City Club.

ADJOURNMENT SINE DIE

League of California Municipalities HEALTH OFFICER'S SECTION

SEPTEMBER 19th TO 22nd, 1922

TUESDAY, SEPTEMBER 19, 1922

MORNING—

- 9:00-10:00—Registration and assignment of rooms.
10:00-11:00—Joint session with entire League.

11:10-12:00—Joint session—PUBLIC HEALTH.....Dr. Ray Lyman Wilbur, President, American Medical Association.

HEALTH OFFICERS' SECTION

AFTERNOON—2 P. M.

1. OPENING ADDRESS.....Dr. W. M. Dickie, Secretary State Board of Health.
2. APPOINTMENT OF COMMITTEES.....
3. REDUCTION OF CHILDREN'S DISEASES BY
PROPER CONTROL MEASURES.....Mr. Louis Olsen, Health Officer, Palo Alto.
4. ADDRESS (Topic to be selected).....Dr. Wm. C. Hassler, Health Officer, San Francisco.
5. PLAGUE IN CALIFORNIA.....Senior Surgeon J. C. Perry, U. S. Public Health Service.
6. INFECTIOUS JAUNDICE.....Dr. Frank L. Kelly, Epidemiologist, State Board of Health.

EVENING—8 P. M.

BARBECUE

SECOND DAY

WEDNESDAY, SEPTEMBER 20, 1922

MORNING—9 A. M.

1. ALASTRIM AND SMALLPOX.....Dr. John N. Force, Associate Professor Epidemiology, University of California.
Discussion led by.....Dr. H. E. Foster, Health Officer, Oakland.
2. CONTROL OF SMALLPOX.....Dr. P. J. Cuneo, Health Officer, Bakersfield.
3. CONTROL OF MALARIA IN CALIFORNIA.....Mrs. R. E. Hackley, Manager Matadera Mosquito Abatement District, Palo Alto.
Discussion led by.....Dr. Sherman T. White, Health Officer, Shasta County.
4. WATER SUPPLY AND SEWAGE DISPOSAL FOR
SMALL UNITS.....Mr. C. G. Gillespie, C. E.

AFTERNOON—2 P. M.

1. PROGRAM FOR RURAL CHILD HYGIENE WORK.....Dr. Ellen Stadtmuller, Director
Bureau of Child Hygiene, California State Board of Health.
2. INFANT AND PRE-SCHOOL AGE PERIOD WITH
SPECIAL REFERENCE TO HEALTH.....Dr. Adelaide Brown, Member
California State Board of Health.
3. PUBLIC HEALTH NURSING.....Mary L. Cole, Director Public
Health Nursing, Red Cross.
4. RABIESDr. L. M. Powers, Health Commissioner, Los Angeles.
5. ADJUSTING TYPHOID FEVER MORBIDITY
REPORTS.....Miss Ida May Stevens, Assistant
Epidemiologist, State Board of Health.

EVENING—8 P. M.

- Joint session—PUBLIC HEALTH: THE FULL TIME
PUBLIC HEALTH PROGRAM AND ITS ECONOMIC FACTORS.....Dr. W. M. Dickie, Secretary,
State Board of Health.
- ADVANTAGES OF COUNTY, STATE AND MUNICIPAL
CO-OPERATION IN BETTER LOCAL
HEALTH GOVERNMENT.....Dr. J. L. Pomeroy, Los Angeles
County Health Officer.
- DISCUSSION

THIRD DAY**THURSDAY, SEPTEMBER 21, 1922****MORNING—9 A. M.**

1. CONTROL AND SANITATION OF FOOD SHOPS.....Dr. Ernest C. Pape, Health Officer, Berkeley.
2. VIRULENCE TEST AS CONTROL MEASURE OF
DIPHTHERIADr. W. H. Kellogg, Director,
State Hygiene Laboratory.
Discussion led by.....Dr. John N. Force, Associate
Professor, Epidemiology, University of California.
3. OUR PRESENT DAY KNOWLEDGE IN THE CONTROL OF DIPHTHERIA.....Dr. E. C. Fleischner, Associate
Professor of Pediatrics, U. C. Medical School.
Discussion led by.....Dr. H. C. Brown, Health Officer
San Jose.

AFTERNOON—

Scenic drive over Santa Cruz Mountains to La Honda.
Trout dinner, Bonzagni's Lodge, La Honda Canyon.

**CORONADO**

WISHES TO EXTEND TO THE
LEAGUE OF CALIFORNIA MUNICIPALITIES
AN INVITATION TO HOLD THE
CONVENTION OF 1923 IN THEIR CITY

California's Water and Power Act

By WM. J. LOCKE,

An Address Delivered Before the Municipal League and the Legislature of Georgia at the Roof Garden of the Ansley Hotel, Atlanta, Georgia, Thursday evening, June 29, 1922.

The period through which we are now passing has been referred to as the "Age of Machinery." It may be said to have commenced with the invention of the steam engine, followed in later years by the engine of internal combustion and still later by the dynamo and electric motor.

The operation of machinery requires the use of mechanical power, and in order to generate that power it has been necessary until recently, to burn up and totally destroy two very valuable commodities, to wit, coal and oil.

The use of machinery has so greatly increased of recent years that, during the last decade or more, public attention has been repeatedly called to the fact that the world's resources of coal and oil are being rapidly depleted and that, in the course of a comparatively short time, they will be entirely exhausted. Moreover, it has also been pointed out that the remainder of the crude oil in the ground will be necessary for lubricating the machinery already in use.

Now then, this is a serious situation, and indeed it would be much more serious if it were not for the fact that happily Mother Nature stands ready to furnish us with an adequate supply of power from another source, power for the generation of which nothing is burned up or destroyed, God Almighty bringing it back to the mountains each year in the form of snow and rain. I refer to the power generated by means of falling water, more commonly known as hydro-electric power. Improvements

in the turbine water wheel and the means for transmitting electricity over long distances have made this power not only available, but more economical than power generated by any other means.

Under the circumstances it will be universally conceded that no unnecessary delays should be allowed to interfere with the development of our hydro-electric power resources, and that to continue burning up what remains of our coal and oil any longer than is absolutely necessary would be little short of a crime.

Realizing the situation to be a serious one and appreciating the importance of conserving all our natural resources, the United States Congress, on June 10, 1920, passed what is known as the Federal Water Power Act, a measure designed expressly for the purpose of stimulating the development of hydro-electric power. A significant feature of this act is the fact that it gives certain preferred rights to states, municipalities, and other political subdivisions. For instance it gives a preferred right in point of time in filing on water power sites. It also provides that no license fee shall be charged against the states or municipalities unless they should engage in the business of selling power for profit. Another preference to states and municipalities is found in Section 7 of the act and reads as follows:

"Sec. 7. That in issuing preliminary permits hereunder or licenses where no preliminary permit has been issued and in issuing any

licenses under Sec. 15 hereof, the commission shall give preference to applications therefor by states and municipalities, provided the plans for the same are deemed by the commission equally well adapted, or shall within a reasonable time to be fixed by the commission be made equally well adapted, to conserve and utilize in the public interest the navigation and water resources of the region."

The Federal Act was passed by Congress in June, 1920. In the following January a bill was introduced in the California legislature for the purpose of furthering the objects sought to be attained by the federal act and stimulate water power development by the state, California having greater potential possibilities in this direction than any other state in the Union.

As a significant coincidence the Railroad Commission, in a report to the Governor a few months previous, had declared that the development of our water and power resources was a matter that should be undertaken and financed by the state, that portion of the report reading as follows:

"In the light of the experience of the last year resulting from water shortage, the commission is of one mind in the thought that there is no endeavor which will more constructively tend toward the development and prosperity of the state than the devising of ways and means for the storage of water and its proper application to the soil for agricultural purposes and for its use in the generation of electrical energy and industrial and domestic uses.

We believe the time is past when the state as a whole can afford to sit by and wait for the spasmodic

development of its water resources by individuals. **The problem as a whole must be solved by the state as such,** and it is our thought that now is the time for a comprehensive program to be outlined. This the state can do through its power in the enactment of laws and its **ability to aid in financing."**

The bill submitted to the California legislature was introduced by Senator M. B. Johnson. It was designed to enable municipalities and other political subdivisions to co-operate in the development of their water or power resources, and do jointly these things which the law now permits them to do singly. The bill passed the Senate without opposition, but by the time it reached the Assembly the private power companies and allied interests had marshalled their forces so effectively that on final ballot the bill was lost by four votes.

However, the advocates of public ownership and development, undismayed by this failure, decided to exercise their constitutional prerogative under the initiative and, immediately following adjournment of the legislature, the cities and irrigationists called a special meeting of their respective representatives at Sacramento to decide upon a plan of action. The situation was gone over carefully, with the result that a committee was appointed to frame a suitable measure for submission to the people. This committee was subsequently enlarged so as to be representative of the financial, municipal and irrigation interests and included some of California's best known citizens. Among those who participated in framing the measure, were the following:

Rudolph Spreckels, San Francisco, financier; William Kent, former Congressman; W. B. Matthews, attorney for the Los Angeles Board

of Public Works; L. L. Dennett, counsel for the San Joaquin Irrigation Districts, and representing San Joaquin county in the State Senate; Clyde L. Seavey, city manager of Sacramento and former chairman of the State Board of Control; Dr. John R. Haynes, of Los Angeles; Dr. Horace Porter, Mayor of Riverside; Wm. J. Locke, Executive Secretary of the League of California Municipalities and City Attorney of Alameda; E. G. Scattergood, engineer of the Los Angeles Power Bureau; Louis Bartlett, Mayor of Berkeley; Robert L. Shinn, City Attorney of Sacramento; William Kehoe, former State Senator; Paul Scharrenburg, secretary of the State Federation of Labor; Ray C. Eberhardt, Assistant Attorney for the Los Angeles Board of Public Works; Esto Broughton, Assemblywoman of Modesto; Franklin Hieborn, Santa Clara; Francis J. Heney, Los Angeles; Charles W. Cleary, Assemblyman of Tulare County; Albert Braunschweiger, member of the Riverside Board of Public Works; Senator William J. Carr, Pasadena; Mrs. Herbert A. Cable, Los Angeles; Mrs. Anna L. Saylor, Assemblywoman from Berkeley; J. L. Matthews, Los Angeles, member of the State Water Commission; J. P. Mallon, of Colusa and Oakland; Judge D. J. Hall, City Attorney of Richmond and Chairman of the Legislative Committee of the League of California Municipalities.

The committee held meetings almost daily extending over a period of three months. The measure as drawn is in the form of a constitutional amendment. It has been given the significant title of California's Water and Power Act. A brief synopsis of its provisions is as follows:

Provision is made for a body of five members to be known as the Water and Power Board. These members are appointed by the Governor, but are subject to recall and removal by the legislature. It is required that the board shall be fairly representative of the state geographically and of its irrigation and municipal interests. The board is empowered to do all things necessary to carry out the objects and purposes of the act.

Provision is also made for a water and power finance committee, to consist of the Governor, State Treasurer, chairman of the board of control and chairman of the water and power board.

Any city, irrigation district or other political subdivision of the state may avail itself of the provisions of the act independently or jointly, and may apply to the water and power board to construct works for the delivery of water or power, or both.

The board examines the plans submitted and, if investigation shows the project to be feasible, contracts are entered into with the applicant or applicants for constructing the works. The applicants must agree to buy water or power thus supplied at rates which will provide for interest, maintenance, operation and reserve for losses, and reimburse the state in fifty years.

The debate on the proposed act is waxing warm, with the private power companies and their allied interests on one side, and the advocates of public ownership on the other. Those favoring the act contend that the principal question involved is the success or failure of public ownership, and they point to the projects heretofore undertaken by the nation, the state and its municipalities as proof of the success of public ownership. Among those referred to are the great reclamation projects of the southwest, which were so successfully put over during the

regime of the late Theodore Roosevelt. They also point to the successful construction of the Panama Canal under Roosevelt, after a private company had failed in the attempt. Likewise the post-office, parcels post and postal savings bank are cited as evidence of successful government administration. And we all know how bitterly the banks and express companies fought against the establishment of the postal savings bank and the parcels post.

The opponents of the Water and Power Act claim that public ownership and operation is costly and inefficient, but, with the exception of the governmental administration of railroads during the war, they are unable to cite a single instance of inefficiency or excessive cost. Nor are the friends of the act at all discomforted by a reference to the railroad administration, as it is a well known fact, that the railroads were placed in control of the very men whose interests demanded that government administration prove unsuccessful. It is just as though the government said to these men, "If public administration proves successful, we will take the railroads away from you." Naturally then the owners did everything in their power to make it a failure.

The spokesmen of the power companies contend that the project is Socialism. Some of them go so far as to claim that the idea was imported from North Dakota or Russia. On the other hand, the friends of the measure are showing that the same kind of opposition was waged against the public school system when it was first introduced in Massachusetts by Horace Mann. So far as the charge of Socialism is concerned, that cry has been raised against every government undertaking that was ever attempted. Theodore Roosevelt was denounced as a Socialist when he undertook the great reclamation projects of the southwest and, in the

eyes of the railroad companies the construction of the Panama Canal was another example of Socialism.

The advocates of the act disclaim any radical tendencies, but hold that the nature and magnitude of the matter make it an affair of public rather than private concern. They contend that monopolistic control of our water resources would threaten the very foundations of the state, as such a monopoly would have every user of water or power at its mercy.

"Give me the water," says one leading advocate, "and you will be my servant, though you have everything else.

"For if you want water for domestic use, you must come to me. If you want power you will have to come to me. If you want irrigation, you will have to come to me. If you want light you will have to come to me. Therefore, control of the water means control of all other things, including control of the state itself."

As further evidence of the success of great projects constructed under governmental supervision, the proponents of the act refer to our state highway system, pointing out the fact that, despite the criticism to which it has been subjected, the state highway system of California has been a model of efficient administration. In a report recently submitted by the bureau of public roads under the department of agriculture, the commission and its work was lauded in the highest terms of praise, the report saying in part:

"The financial administration has been honest and careful, and the administrative and engineering costs have not been excessive, nor have final costs much exceeded the engineer's estimate. There should be no hesitation in going forward with confidence."

"The Maintenance Organization," the report says, "appears adequate.

The organization of the highway work is not unwieldy and in-form is unusually well adapted for the large scale of operation it has conducted. The salary scale is good. The details of the engineering standard are carefully thought out and unusually complete. The standard plans and drawings are excellent and the clear-cut precision of all engineering operations makes for speed and efficiency."

"In conclusion," the report says, "the work of the State Highway Commission and of the highway engineer shows a continuous and intelligent devotion to public duty."

Another evidence of successful state administration is to be found in an article published in the Literary Digest for April 15, 1922, under the title, "A Vegetable Oil Terminal." The terminal is located in San Francisco and the article says, among other things, the following:

"This terminal, we are told by an article in the Marine Review, New York, was constructed and is operated by the State of California and is among the best equipped in the world. The terminal is controlled by the Board of Harbor Commissioners, which has control of all the water front of San Francisco. The facilities include wharves, with deep water enough to accommodate any vessel which has as yet appeared on the Pacific, etc."

The San Francisco Chamber of Commerce recently made a survey on the handling of vegetable oil and copra at this terminal, and submitted a report thereon wherein they say:

"San Francisco now has what is generally conceded to be the most completely equipped vegetable oil terminal, storage and warehouse plant on this continent, etc."

It would appear from the foregoing

evidence that there are at least a few enterprises which have been undertaken by the state with success.

Not only has public ownership been successful in national and state enterprises but public ownership and operation by the municipalities have proved equally successful. The last report of the state controller issued a few weeks ago shows that 132 cities of California own and operate water works while twenty cities own and operate electrical distributing systems. A reference to the rates which are also set forth in this report disclose the further fact that they are invariably lower than the rates charged by the private corporations.

In November, 1920, in a debate on this question of public ownership which was held under the auspices of the League of California Municipalities at Chico, W. E. Creed, president of the Pacific Gas and Electric Company, said: "I can show you one failure for every success." We determined that this charge should not go unchallenged and, accordingly, letters were written to the mayors of all the cities in the state owning and operating municipal plants, requesting answers to the following questions: (1) Has municipal ownership and operation been a success or a failure in your municipality? (2) Have your water or lighting rates (as the case may be) been reduced in consequence of municipal ownership and operation? (3) Has the service been improved? (4) Are your rates lower than those charged in neighboring municipalities served by private corporations? (5) Is the expense of operating your works paid wholly from rates; if partly from taxes, why? (6) Has politics entered into the management of your utility to any extent? (7) In your opinion, are your utilities as efficiently and economically managed as utilities under private ownership? (8) Do you

(Continued on page 314)

What's the Matter With Our State Controller?

August 30, 1922.

Mr. William J. Locke,
Executive Secretary,
League of California Municipalities,
Pacific Building,
San Francisco, California.

Dear Sir:

In a correction to the Annual Report of Financial Transactions of Municipalities and Counties of California for the year 1921, State Controller Ray L. Riley makes the following statement:

"During the past decade the total bonded indebtedness for all forms of government in California has increased from \$93,906,423 to \$321,616,238.66, or 242 per cent, while the wealth of the State has increased about 60 per cent. This tremendous increase that aggregates more than 3 per cent of the total wealth of the State should have the attention of all tax levying bodies. California's credit must not be jeopardized by over financing, and the same ratio of increase during the next ten years would impose confiscating tax burdens upon the people.

"During the past year the total amount expended for interest and redemption of debt was \$27,559,297. To produce this amount it would require a tax rate of 56 cents on every \$100 of assessed valuation."

That to produce this sum did not require a tax rate of 56 cents on every \$100 of assessed valuation challenges the correctness of the State Controller's conclusions.

Approximately \$3,300,000 of this amount was redemption and interest on bonds issued for the construction or acquiring of municipal public utility enterprises and for State harbor bonds,

all of which properties are self-supporting and do not cost the people one dollar in taxes.

It is possible that the same rate of increase in the total bonded indebtedness of all forms of government will be more than maintained during the next decade consequent upon the State and its municipal and other political subdivisions further engaging in revenue producing enterprises.

As such enterprises do not increase taxes, but on the contrary actually reduce taxes in many cases, the conclusion of the State Controller that "the same ratio of increase during the next ten years will impose confiscating tax burdens upon the people" is unwarranted and unless corrected may prove an adverse advertisement to this State.

The interests opposing the California Water and Power Act have seized upon the controller's statement and are using it to influence ratepayers to vote against the proposed constitutional amendment known as the California Water and Power Act. Through an erroneous conclusion of a public official, voters are being influenced to vote against their best interests.

It is obvious that multiplications of investment in expense saving or revenue producing properties and improvements result in a reduction instead of an increase in the people's tax burden.

This is readily illustrated by the fact that the saving in rentals upon the occupancy of a city hall or other government building often effects economies and the ultimate reduction of taxes.

The city of Lodi, in addition to other savings the effect of which has been to reduce taxes, has from the earnings of its public utility enterprises purchased and

improved a city park and built municipal baths and a swimming pool at a cost of \$20,000.

Alameda, from its electric light plant earnings, has improved the plant to the extent of over \$500,000 and has declared "dividends" of over \$320,000 in payments for schools, parks, an industrial railroad, street-lighting and so forth.

This story could be repeated for other municipalities, so refuting the contention of the State Controller that a multiplication of such investments will result in confiscating tax burdens on the people. It will bear repetition that such investments effect low rates for the water, power or other services and at the same time result in a reduction in the general tax rates.

The State in its public ownership undertaking has been equally successful. The State Harbor Commission has, by the use of State credit, built up a property which could not be reproduced for \$50,000,000. This \$50,000,000 property has not cost the taxpayer one dollar.

Illustrations could be multiplied, but sufficient has been stated to show that public ownership undertakings can, at lower rates, carry the burden of interest and redemption of their own bonds, and, in addition, return tangible profits into the public treasury, thus effecting a reduction in taxes. The State Controller's conclusions are erroneous and should be contradicted.

Analysis of the Annual Report of Financial Transactions of Municipalities and Counties of California for the year 1921 issued by the State Controller emphasizes the necessity for a revised presentation of some of the subjects reported. A table which purports to show comparative costs of government of California for 1921 includes agency transaction items, and payments made in connection with public service enterprises. These are not part of the cost of

government and their inclusion in such a table has the effect of "padding the expense account."

Under such a set-up, sums paid out of current revenue of public service enterprises for permanent improvements will show as part of the cost of government; if undertaken by private interests they would not be included. This is absurd.

Other misrepresentation of the facts will be apparent to you upon even a cursory examination of the report, and the thought occurs that if these incorrect statistical statements result in misleading the State Controller, then it is in the interests of the municipalities and other political sub-divisions to make recommendations and urge the adoption of a more equitable presentation of the financial transactions of the State and its political sub-divisions so that a correct statement may be had of the actual cost of government, apart from those transactions which merely result in the receipt and expenditure of moneys and of transactions which result in profit; neither of which class of payments adds to the cost of government. In this way even those not so well informed as the State Controller will not be misled. It is important that statistical information from governmental sources should correctly and indisputably state the facts and this unfair statement of cost of government and the ridiculous conclusion of the State Controller as to the effect upon taxes of increased investment by the State is brought to your attention in the belief that the California League of Municipalities will be interested in bringing about a revision in the present method followed by the State Controller.

An increase in bonded indebtedness does not threaten the taxpayer with confiscating tax burdens.

Very truly yours,

FRANKLIN HICHBORN.

SEWER PIPE AND HOME INDUSTRIES

By GEORGE HYDE EMERY

Sales Manager, N. Clark & Sons, San Francisco, California

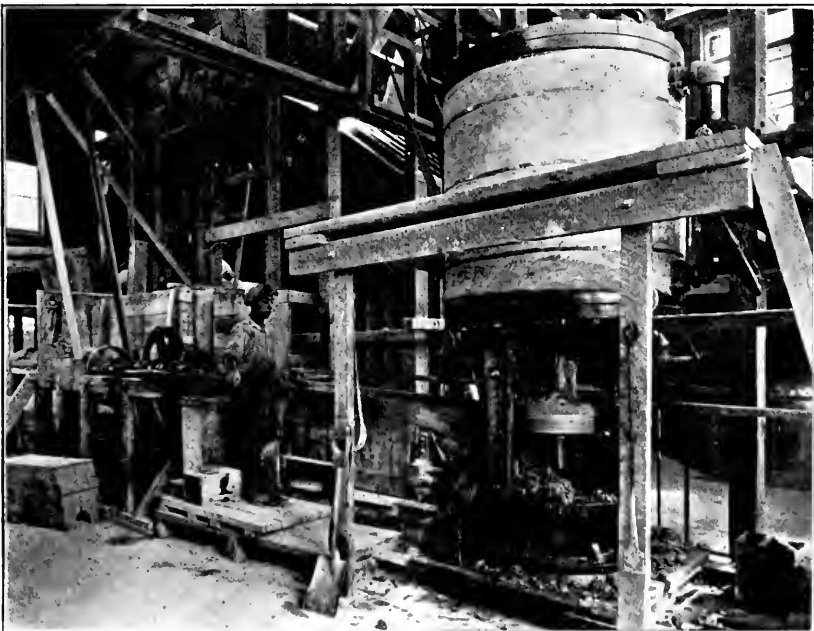
Ten Million Dollars and Ten Thousand Men are at work in California to provide this great State with the most durable and everlasting sanitary drainage material ever produced on the face of the globe. So common is the sight of salt glazed sanitary vitrified sewer pipe on the streets of our communities that little or no thought is given by the average citizen to the vast investments and extensive plants for its manufacture, located at vantage points in the State.

The vitrified clay sewer pipe industry represents supply and homes to hundreds of California families. With pay rolls aggregating one hundred thousand dollars per month, it represents tremendous purchasing power to the farmer and merchant. The thousands of dollars paid out annually by these manufacturers for machinery, equipment, re-

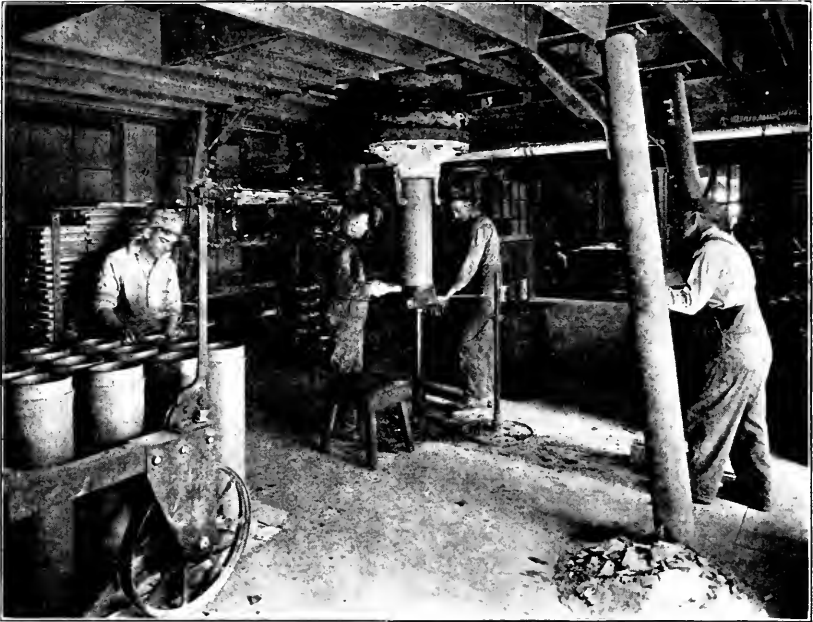
pairs and supplies of all kinds, represent profits to the dealers in these commodities in our cities.

These factories are indeed home industries of mighty importance to the welfare of California, both from the standpoint of manufactured product and the protection of its citizens from disease, by furnishing a material for sanitary drainage at reasonable cost, and it goes without saying that those public officials and citizens whose motto is "the greatest good to the greatest number" are staunch supporters of salt glazed vitrified sewer pipe for sewerage disposal.

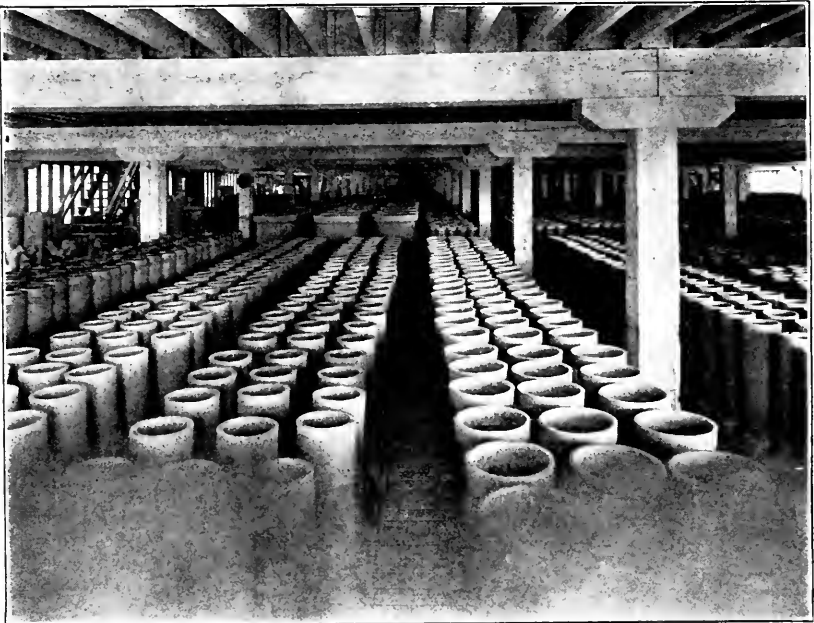
This industry being of such importance to the community as a whole, it is interesting to know something of the process of manufacture as well as a bit of its history. Clay is the oldest thing



SEWER PIPE PRESS. STEAM CYLINDER AND FEEDER.



SEWER PIPE PRESS. DIE AND OUTLET.



SEWER PIPE ON DRYING FLOOR.

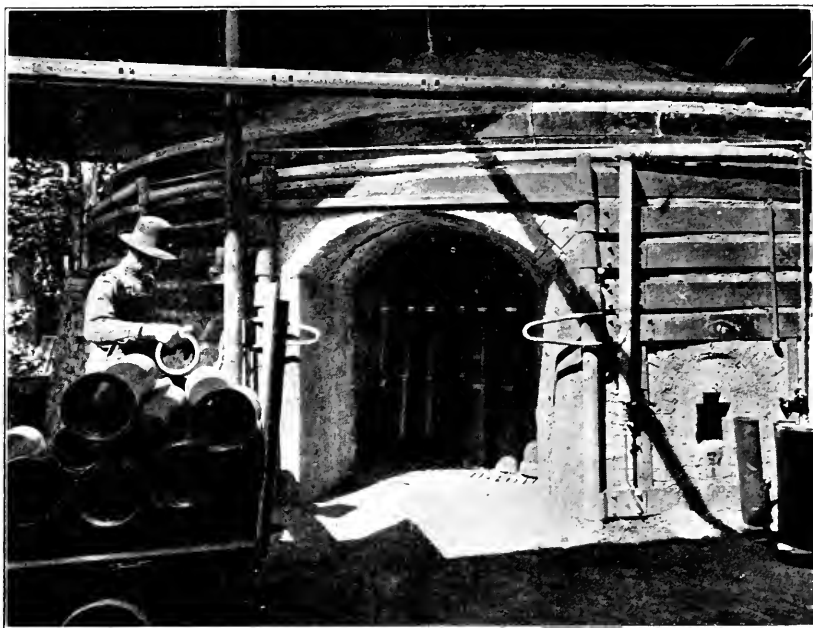
in the world. In the beginning God created the earth. All clays are the result of decomposed felspathic and silicious rocks. These deposits have been formed in all geologic epochs and vary in quality from common brick clay to rocklike shales and fire clay. Great care is exercised in the selection of clay for the manufacture of sewer pipe. It must be free from foreign matter, such as lime, magnesia, etc., which are undesirable and often render the clay unfit for the potter's use. The clays used by California manufacturers are mostly found in the foothills and mountainous sections of the State.

The clay is loaded in freight cars and shipped to the factory, where it is ground and screened, which puts it in condition for tempering. The material is then tempered with water, brought into a plastic condition, on a revolving machine, called a "wet pan" and kneaded under heavy rollers. When brought to the right plasticity, it is compressed

in a steam cylinder and forced through steel dies under ninety tons pressure. We now have a sewer pipe, a solid homogeneous pipe of clay. This sewer pipe is then carefully trucked to the drying floor. The drying floors are perforated or constructed with spaces between the floor boards and underneath are arranged steam pipes in such a manner as to permit a draught of warm air to pass through the ware. After the drying is completed, they are set in down-draught kilns, the kilns sealed and fires started. The burning process is most interesting and most exacting. From the start to the finish, the burning has the fascination of an automobile race. Just the exact amount of fuel at the exact moment. If too fast the ware is ruined, if too slow it is ruined and when the vitrifying point is reached, after continuous day and night burning for several days, reaching approximately 2,500 deg. F., the burner must know the exact moment when to apply the



INTERIOR OF SEWER PIPE KILN



SEWER PIPE KILN DRAWING BURNED PRODUCT.



SEWER PIPE STORE YARD.

glazing. Salt glazing is more simple than one would think. It is done by feeding salt into the fire holes, which volatilizes and produces a chlorine gas, which attacks the silica in the clay and forms a glass surface on the pipe, which we call salt glaze. The process of bringing the pipe up to the annealing point produces a physical change in the clay known as vitrification, producing what is commonly known as salt glazed vitrified sanitary sewer pipe. It is frequently called iron stone pipe because the clay is thoroughly welded into one piece by intense fire. When the kilns are cooled, which also must be done slowly, requiring several days, the sewer pipes are sorted into their respective sizes and piled on storage yards ready for shipping.

The history of burned clay for sewerage disposal dates back to the days of the Babylonians and the Roman Empire. The Babylonians and the Assyrians attained a high degree of proficiency as clay workers, including glazings, coatings, colorings and enamels. The site of the ancient city of Babylon is still marked with huge masses of burned clay brick, the ruins of its great walls, and clay pipe unearthed there show no signs of disintegration. Some of these clay pipes may be seen today in the museum at the University of Pennsylvania. The Romans became masters of the art of clay working during their occupancy of Egypt and Greece, which they extended and revived about the beginning of the Christian era. The

Roman aqueducts were built of burned clay brick and stone, the Roman sewers of clay pipe and lava blocks and the Babylonian sewers of clay brick, clay pipe and bituminous mortar. Thus we see that for over six thousand years this most wonderful product has been used for sewer construction and there is not a single case of record where it has disintegrated by action of sewerage, acids, gases, alkalies or the elements.

Notwithstanding all the time, care and expense put into the manufacture of salt glazed vitrified sewer pipe, the pipe itself is a small proportionate cost of the sewer system. An ordinary house connection, 4-inch vitrified pipe, connecting the house with the main sewer at the street, would cost the home owner less than \$10.00 for the pipe itself, while a whole block of 8 or 12-inch pipe for sewer main in the street would not exceed \$300.00. Taking the average of many cities, we find that four-fifths of the money is spent for labor and other expenses, while but one-fifth is spent for the main material item, the sewer pipe. Why then should the element of cost of the vitrified pipe be made a talking point by advocates of substitutes of divers kinds for the only permanent, acid-proof, vermin-proof material that has ever been manufactured for sewerage disposal?

All sewer pipe should be required to stand the "acid test" and the California manufacturers of salt glazed vitrified sanitary sewer pipe invite public tests of their products at any and all times.

Note: The factory cuts used in illustrating the above article were furnished by courtesy of N. Clark & Sons, San Francisco.

VITAL FACTS ON PORTLAND CEMENT

How Competition Operates—Important Phases of Cement Making and Selling

By JOHN E. McELDOWNEY

Editor, Real Estate News, Chicago

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One of the most discussed subjects in the United States today is that of Portland cement. The average man thinks he knows all about it. He sees it used every day. He walks on it, rides over it, scrapes furnace ashes from it in his basement. Out of this familiarity he gets a belief that he can talk about cement with authority. Yet not one man in a thousand really knows anything worth while about the cement industry.

The whole country is in dire need of the truth about this vast industry. Everybody is affected by it, for its use is vital in the lives of all of us. It is not too much to say, perhaps, that our whole civilization of today is based on a cement foundation. Our cities rely on it for factories for their workers, bridges for their streams, foundations for their homes, roadways for their traffic and sidewalks for their safe and easy transit. On our farms it is indispensable — foundations, silos, stock houses, fertilizer pits, myriad other uses. Finally, it has come to serve the nation as the firm link which, in the form of hard roads, binds city and countryside together for mutual weal.

Yet how little the average American knows about this marvelous cement which thus binds the country together. Thousands of merchants, alert, active, well-informed, have sold cement for years and yet know only in a hazy way how it is made and marketed. Thousands of builders have bought it,

and used it, for years and years, and have their business success dependent in large part on it, and yet know not the important hows, whys and wherefores of the cement business.

Importance of Wider Knowledge

This lack of wide knowledge concerning cement involves a real peril. The more any product is needed for our personal and national well being, surely, the more each of us should know about it. Only as we are informed of the workings of an industry, and of its needs to better serve us, can we bring to bear a common intelligence in protection of our interests as affected by that industry. And this is particularly true of any industry which, because of its bigness and its vast organization, may be made the target of harmful laws, lawsuits or political attacks.

Any industry which in its nature is wealth-creative is peculiarly entitled to help from enlightened public opinion. For injury to such an industry injures also the public interest. This principle applies with especial force to the cement industry. Its product is not destroyed or consumed in use. Wherever it goes it is permanent, adding to the national wealth and the taxable values of all property. As a common example of this may be cited the rises in farmland values due to concrete roads wherever built. So it may be seen what grave results to the public might result from public action of any sort which would

disorganize a national industry now adding at least \$200,000,000 a year directly to property values, and indirectly sums far beyond computation.

Affects Vital Issues of Prosperity

A wider knowledge of the cement industry is especially to be desired at this time by the realty owning, taxpaying and business interests of the country. We have a big job of national construction and reconstruction on our hands. There is a housing shortage affecting millions of us. Huge programs of bridge, subway, track elevation, street widening work, confront us in the cities; of hard road building costing hundreds of millions in the rural districts. We all know the unemployment problem vexing us depends for solution on these building programs.

Not one of these major projects so vital in nature can be completed—many could not even be planned—except by relying upon the cement makers of the United States to put at our disposal the products of their mills. This realized, is it not the duty of all of us to be informed concerning cement, its making and marketing methods, and so judge what the individual and the public official ought to do to advance common prosperity?

Prices Have Steadily Declined

Portland cement has been made only during the last hundred years, and only about fifty years in America. In 1880 the U. S. production was only 42,000 barrels, grown to a high water mark of nearly 100,300,000 barrels in 1920 (U. S. Geol. Survey figures).

Throughout that 40-year period production increased while price declined. In 1880 cement sold at \$3.00 per barrel average at the mill. The average competitive mill price in 1920 was \$2.02.

In 1921 this had dropped to \$1.87. Now it is considerably less. At many of the large plants it is now \$1.50 per barrel or only half of the average price in 1880, and less than the average of \$1.53 for the 40-year period covered in the government report.

Effect on Building Projects

As to current prices of Portland cement there is considerable discussion. In some political quarters there has been complaint including concerted action by public officials in some places to stop vast road and other public improvements until cement producers slash prices to some figure arbitrarily fixed by these officials. Generally, however, the industry is going ahead. Buyers are taking cement at the market prices in increasing volumes, as indicated by the official construction figures month by month.

The fact that cement is a vital necessity in home building inclines most people to exaggerate in their minds the cost of this item of material expense. Yet the cement cost in an average \$10,000 house, including basement and sidewalks, is only from 1½ to 2 per cent of the whole cost involved. In apartment houses the cost is from 1.7 to 2.1 per cent; in office buildings of fireproof construction from 1.5 to 3 per cent; and even in reinforced concrete buildings, with foundations, walls, floors and roof all of concrete, the cement cost averages only 6.5 per cent of the total cost. Thus, a difference of 10 cents per barrel on cement prices means a total of about \$10 for each \$10,000 spent in building.

In every industry the costs of making and distributing a product are the biggest element in determining market prices. How have these costs affected cement? How are they acting on current operations in the manufacture, sale and shipment of cement?

How High Costs Hit Manufacturers.

The cost of making cement is made up principally of labor, freight rates, coal and limestone, and the chief element in the cost of coal and limestone is labor. An investigation of the costs of one of the largest cement plants in the United States discloses the fact that its cost of coal at mines in February, 1922, was 203 per cent greater than in 1913, the cost of limestone at quarries 60 per cent greater, and of labor 54 per cent greater. About 13 $\frac{3}{4}$ tons of raw material and coal are required to produce one ton of cement. Freight rates on coal in February, 1922, were 107 per cent greater than in December, 1913, and on limestone 52 per cent greater. But the increase in selling price of this company at this time as compared with 1913 is only 48 $\frac{1}{2}$ per cent.

When these facts are considered those of us who have held to a view that current cement prices are high may revise our ideas. It may help us to read what the War Industries Board said in an official bulletin in 1919:

"The remarkable lowering of the prices of Portland cement from \$3 a barrel in 1880, while the prices of its chief competitors, lumber, brick and stone, advanced from 20 to 75 per cent, is one of the reasons why Portland cement has gained new uses at the expense of its rivals. The decline in cement prices from 1913 to 1914 and 1915 was the result of sharp competition between cement mills with productive capacity over 50 per cent in excess of the output. The subsequent rise in the price of cement from 1916 to 1918 was due to rapidly increasing wages and fuel costs. On the whole, however, cement prices did not rise as rapidly as the prices of other building materials."

Facts on Manufacturers' Profits.

The industry which has thus consistently lowered the price of its products is misunderstood by many people as to its methods and manner of growth, as well as to its operations. The development of this industry has been marked by many failures. It is known that over 320 companies have been formed to make Portland cement. Of these 60 failed of enough capital to begin operating, 90 were driven from the field by lack of success; some 30, with from \$1,000,000 to \$12,500,000 invested capital, went bankrupt. The rest survive in the form of about 85 producing concerns.

Few indeed are the dreams of wealth that have come to realization through Portland cement, a fact which may be surprising to many people. The great size of plant units and the enormous output gives us an impression that tremendous profits must result. A recent official compilation of earnings of nineteen companies producing 30,000,000 barrels a year in the Eastern field of the United States, shows average per cent profits of 6.6 in 1919 and 5.1 per cent in 1920. One of these concerns with \$3,250,000 invested earned a net income in 1920 of only \$4,239.96 on a business of 1,100,000 barrels. The U. S. Geological Survey reviewed the industry in these words a few years ago:

"The situation presents a peculiar paradox. Here is a great industry showing constant development and increase in production, but the situation from the standpoint of the manufacturer is far from encouraging. There are no dividends in sight, and some of the mills are in the sheriff's hands. The cement manufacturer has been a veritable anomaly in modern commercial and industrial development. His industry enjoys the unique distinction of

being the only one of its magnitude that has been practically free from over-capitalization. The price of his product is so low that one could not scrape the free sand from the gutters at much less cost per barrel than the present price of cement."

Why Cement Prices Are Uniform

The fact that cement is always sold at a uniform price at any one time in any one market is a matter many people cannot understand. It is even argued that this fact tends to prove that cement companies operating in the same field do not enter into competition, but work in combination. The reason for this, however, is very simple when the nature of the product is examined.

Portland cement is probably the only manufactured article in the United States which has been absolutely standardized. Years ago, to insure structural safety of great works and the safety of many people, the U. S. Government, American Society of Civil Engineers and American Society for Testing Materials named a special committee. This body, in a labor lasting many years, set the standard for this material. This standard fixes the chemical composition, specific gravity, fineness, soundness, time of setting, tensile strength, and all other qualities. Every Portland cement must comply with that standard. Hence all are exactly alike.

The law of prices where such materials meet in competition in the market is set forth in "The Theory of Political Economy," by W. Stanley Jevons, LL.D., M.A., F.R.S. (MacMillan & Co., Ltd., London, last published in 1871). Jevons says:

"When a commodity is perfectly uniform or homogenous in quality, any portion may be indifferently used in place of an equal portion; hence in the same market, and at the same moment,

all portions must be exchanged at the same ratio. * * * Where no difference exists at all there can be no ground for preference whatever. If in selling a quantity of perfectly equal and uniform barrels of flour, a merchant arbitrarily fixed different prices on them, a purchaser would, of course, select the cheaper ones; and where there was absolutely no difference in the things purchased, even an excess of a penny in the price of anything worth a thousand pounds would be a valid ground for choice. Hence follows what is undoubtedly true, with the proper explanations, that in the same open market, at any one moment, there cannot be two prices for the same article."

How Delivered Prices Are Developed

To understand the uniform pricing of cement, in all markets, and the reasons for it, it must be held in mind that this product is usually sold f. o. b. the delivery point. The mass of men who buy and use cement know nothing about freight rates. Not one in a thousand could ever figure a complex freight rate schedule so as to know what his cement would cost him at his home railway station if bought at a mill price. For these and other reasons cement buyers generally do not desire to buy at the mill but purchase at the point of delivery. So the manufacturers, to simplify business for users, have always carried the burden of figuring the freight and, of course, charged it in when making delivered prices.

No one but a freight traffic expert, of course, can grasp an idea of the titanic task of figuring thousands upon thousands of freight rates needed to meet the demands of every city and hamlet in America as to cement. A simple illustration of cement competition may be cited thus: A, B and C are cement makers, with works at X, Y and Z re-

spectively. Each seeks business at M, a town with a 30-cent freight rate from X, 40 cents from Y and 35 cents from Z. This gives A a 5-cent advantage over C and 10 cents over B. A figures he can sell at say, a mill price of \$1.20, so adds the 30 cents freight and quotes \$1.50 at M. Then if B and C want to do business at M they must meet A's price, requiring B to go 10 cents below A in his mill price and C to go 5 cents below A in his mill price. Unless B and C can make the mill price sacrifices required by the market at M as made by A's \$1.50 price, then A will monopolize the market at M up to his capacity to supply that market.

In other words, as the economic law precludes a difference in prices of Portland cement at the same market at the same moment (Jevons, Page 9, *ibid.*) the place of competition between the factors shifts from the market to the mill. Thus the usually uniform price at any market, instead of indicating lack of competition, really is the result of severe competition between manufacturers. Furthermore, with the product absolutely uniform, any manufacturer who quotes more than the lowest price offered by any other in any given market will not be able to sell his product, for purchasers will not pay him a premium. He must meet the lowest price made by any one or get out of that market. That the competition has always been active and real, and frequently of the "cut-throat" variety, has been repeatedly recognized and commented upon in many Government publications. It has, indeed, ruined many companies. In one notable price war in the Eastern field, in 1915 lasting for four months, millions of barrels were sold at an average loss to the warring companies of more than ten cents per barrel.

As to Future Delivery Contract

In cement merchandising methods

several unique features have been developed. One of these pertains to future delivery contracts. Men who contract to carry out vast improvement projects, requiring large quantities of cement to be delivered at various times as the work goes ahead, must needs protect themselves from loss by knowing in advance of starting the work what their cement for the job will cost them. They do so by a contract for future delivery, whereby the cement maker agrees, perhaps three years in advance, to deliver to the contractor the cement he will then need, as estimated by engineer or architect.

These future delivery contracts differ from the ordinary contract in commerce in this: They are binding, in practice, only upon the manufacturer. There are no margins posted, no advance payments on account. For the buyer it is like purchasing "futures" on the stock exchange without putting up a cent. If when the time of delivery comes the buyer wants the cement contracted for, he takes it; if not, the manufacturer "holds the bag."

In making these future contracts, it was for years a practice of many buyers to contract for cement for the same piece of work with each of two, three or more manufacturers. Then, at delivery time, if the price was up 10 cents or more a barrel over contract price, the buyer would call on each of the manufacturers to deliver to him the amount of his "futures" and frequently sell them in the open market at the profit he could make. So it happened that oftentimes a man with 10,000-barrel contracts with a number of mills could "scalp" the market for \$1,000 or more each on his contracts. And if the market was "off" or stationary the contract holder would cancel his excess contracts without loss.

This system, naturally, kept the industry in a turmoil. No cement mill

manager could ever know how much solid business he had on his books for future delivery. He could not possibly gauge the market or know whether to increase or cut down activity. He could not know whether his mill storage space would be glutted with cancelled orders or his bins be bare of supply. This, plainly, is a perilous state of affairs when you are doing business on a scale of millions and with an industry where steady intake and outgo of product is vital to successful operation.

So it came about that the manufacturers of cement, in order to remove this peril, were forced to require each seeker of a future delivery contract to inform them what job or project each "future-delivery" contract covered. It should be noted that this custom applies only to "future deliveries." As in any other

line of business, any person can at any time get all the cement he wants without specifying where the cement is to be used, providing he will take and pay for it. The only thing the manufacturer aims to do is to protect himself on "future delivery" contracts against the buyer speculating with cement still undelivered and unpaid for.

Work of Portland Cement Association

The Portland Cement Association is a group activity in which the manufacturers have engaged, and to it is attributed largely the growth of the industry. It is said that more benefit has been given the people of the United States by this association than by any other business organization in the country. Through it the cement companies have made large expenditures to

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promote greater use and better methods in cement work. The cement problems of the country have been solved by its experts as they have arisen, and it is the highest type of promotive and scientific organization.

As everyone knows, cement is never used alone. Its value in use, and therefore the demand for it, depends upon whether it is used properly. Cement makers soon found, therefore, that if their material was ever to be popularized, and its uses extended, they would have to point the way. The individual manufacturer could not afford to do this experimental, scientific and educational work. So all in the industry joined hands in doing a national work of research; of standardizing concrete methods and developing new uses through this association. They pay the costs of this vast work on a pro rata basis.

The work of the Portland Cement Association is in the interest of cement

users. Its chemists seek to improve ways of mixing and placing concrete. Its structural engineers give the public free service as to large concrete structures. From its farm bureau any farmer may obtain free plans and designs of many farm structures to be made of concrete. Its highways bureau assists in preparing highway laws, acts as an adviser to public officials and contractors on cement road work, and keeps highway builders informed of new and improved construction methods. Its staff of field engineers, operating out of 24 offices in all sections, is at the service without cost to all architects, engineers and others on public and private construction projects, helping in the great work of making cement serve the public. This association has no relation to production, prices or sales.

Intricate Process of Manufacture

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what of science, of service and of capital and labor involving hundreds of millions is put at his command when he buys a bag, barrel or carload of cement. Not one in ten thousand, probably, knows what the mill processes by which cement is produced involve in skill, labor, power and cost. What must the manufacturer do for the \$1.50 he gets from you when he gives you, at the door of his mill, four sacks containing a standard barrel of 376 pounds of Portland cement?

Portland cement consists mainly of silica, lime and alumina obtained from: (1) cement rock and limestone, (2) blast-furnace slag and limestone, (3) clay or shale and limestone, or (4) clay and marl. These materials, in due proportions, give the needed chemical elements. For success, however, the mixture must be carefully proportioned and worked according to a rigid scientific formula. The penalty of error may involve total loss of large quantities of costly product at any time. In some mills samples are automatically taken for chemical tests at intervals of eight seconds.

First the rock must be quarried and transported to the mill. Then it is ground to a powder, analyzed, mixed in accurate proportions. Next it is subjected to long and gradually increasing heat until, at about 3,000 degrees, the

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powder melts and fuses into hard balls, known as clinkers. These are so hard and abrasive that they will scratch glass.

Then the clinker must be cooled, mixed with an accurate proportion of gypsum, and then this very hard rock substance must be again ground to a powder so fine that 78 per cent of it will pass through a sieve having 40,000

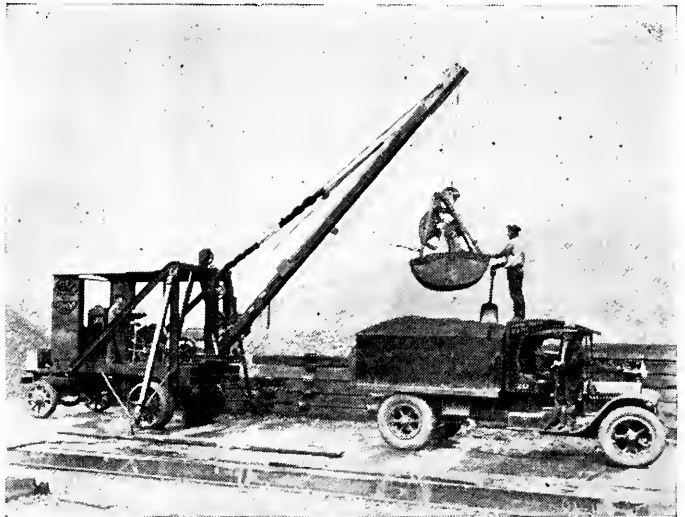
holes to the square inch. Finally this finished product must be analyzed, packed in bags and placed in cars for shipment. This is the product, made in a plant costing from \$2,000,000 to \$5,000,000 to build, that the U. S. Geological Survey has said is sold at a price "so low that one could not scrape the free sand from the gutters at much less cost per barrel."

NEW TRAVELING CRANE TYPE

A big forward step in "taking the crane to the job" has been made by The Byers Machine Company of Ravenna, Ohio, in bringing out a crane that can be mounted permanently on a motor truck.

The new outfit, called the "Byers Truckcrane," can be driven from the garage to the job every morning just like any automobile, or driven from one job to another with a minimum of time lost in travel.

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together with the strength and comparative lightness of the unit, open a new field of crane service. Owners whose work has hitherto been too limited to operate a large crane, can, it is believed, use a machine of the "Truckrane" type at profit. It should prove an ideal piece of equipment for general contractors, material and supply dealers, counties, municipalities, and industrial plants.

The crane, unmounted, weighs only six tons, and is similar to the Byers Auto-Crane Model "1" in every respect, except that it has no wheels, jack shaft, nor differential and drive chains. It has a power drum for raising and lowering the boom, which is of steel.

The crane is furnished with a Hercules four-cylinder 4x5-in. engine developing over 30 H. P., to be operated with gasoline power. Any half cubic yard

bucket weighing not over 2,000 lbs. can be used with it.

It is not at all necessary to use a new truck for the mounting. One that has seen 90% of its usefulness, having a motor that is capable of turning over, is all that is needed. Bargains in half-worn out motor trucks can be had everywhere, making the first cost of a complete outfit extremely reasonable.

The "Truckrane" shown above is owned and operated by The Worth Motor Service Company of Chicago.

The Byers Company has already started the erection of additional buildings and machinery required to manufacture the "Truckrane" on a large production basis without any interference with their standard lines of "Auto-Cranes," Revolving Cranes, and Hoists.

Distinction Between Black Types Important

The well-known types of black pavement are asphaltic concrete, asphalt macadam, oil macadam, roads having a surface treatment of oil, and oiled earth roads. Proper distinction between these types is all-important in arriving at an intelligent judgment of pavement values.

Asphaltic concrete consists of crushed rock or gravel, sand, and fine material, proportioned in size and weight to make a dense pavement, mixed hot in a central plant with sufficient asphalt to coat all particles, laid on a prepared subgrade and rolled with a heavy roller. This results in a resilient, tough pavement,

which has given successful service under almost every condition of traffic, climate and soil, with little or no maintenance.

For the great majority of cases the asphaltic concrete type of pavement should be used. Asphaltic concrete provides a finished pavement at a reasonable cost. The first asphaltic concrete pavement on the Pacific Coast, laid in Visalia twenty-eight years ago, is in excellent condition and has cost nothing for maintenance. Fresno, in 1902, and Sacramento, in 1906, laid asphaltic concrete pavements, which are in fine shape to-day with practically

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no maintenance. These are but three of the seventy California cities which have used the type. Fifteen California counties, of which Fresno County, with 125 miles, Kings County, with 103 miles, and Yolo County, with 40 miles, are examples, have used asphaltic concrete, as has the California State Highway Commission. The Oregon Highway Commission has laid 320 miles of asphaltic concrete base and surface. Portland, Oregon, has 7,000,000 square feet laid since 1911, on which maintenance for the last 3½ years was only \$550. The equivalent of about 2,000 miles of asphaltic concrete base and surface pavement is now in use on the Pacific Coast.

Asphalt macadam is laid by the penetration method. Successive layers of rock are laid, rolled and sprayed with hot asphalt. The asphalt penetrates into the spaces between the rocks and cements the course together.

Well-built asphalt macadam has given excellent satisfaction in many places. The California State Highway Commission alone has awarded contracts for 100 miles of this type of pavement since January 1, 1921. Cases where the value of the land calls for a pavement with relatively low initial cost are especially favorable to asphalt macadam.

Oil macadam was laid by the penetra-

tion method, but the oil used as cement contained less than 100% of asphalt, often running as low as 65% to 75% in asphalt content.

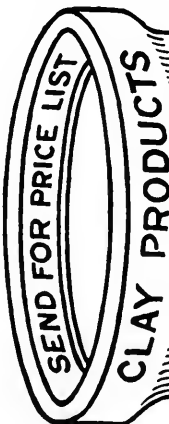
Oil macadam is not considered as desirable as asphalt macadam, since it has been proved that roads constructed with oil which contains only a percentage of asphalt do not compare favorably in strength and toughness with roads where 100% asphalt is used.

Surface-treated oil roads are usually made by spraying the old road surface with oil containing a percentage of asphalt, and spreading screenings or sand over the oil. Oiled earth roads were sometimes made by plowing up the soil, rolling it, spraying it with oil, and covering with sand or screenings.

Surface-treated oil roads are temporary expedients to keep dust down and protect the roads from being torn to pieces by traffic. In order to keep the road in good shape the oil surface must be often renewed. Oiled earth roads are not permanent and tend to deteriorate rapidly.

Pavements of these types are all to be found on the Pacific Coast. When investigating pavements a clear distinction must be made between the types. It should be borne in mind that all "black" pavements are not asphaltic concrete.

—(The Roadrunner.)



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(Continued from page 294)

set aside a fund out of the revenues for depreciation and replacement?

Replies to this questionnaire were received from all parts of the state. Without a single exception they showed that municipal ownership in California was an unqualified success. In almost every case the rates had been reduced and the service improved in consequence of municipal ownership and operation. It also developed that in all cases the operating expenses were paid wholly from rates or revenues and never from taxes. It was also disclosed from the replies that politics does not enter into the management of municipally-owned utilities. Among the letters received was one from Mayor Rolph of San Francisco, wherein he deplored the fact that San Francisco does not own its water and lighting systems. He called attention to the success of the municipal railways of San Francisco "despite," as he said, "propaganda circulated by

private interests," and pointed out that the operating expenses were paid entirely from income and not one cent from taxes. "Besides," he continued, "the railways have laid by a handsome profit and operation has been entirely free from politics, the system being operated as a strictly business proposition. Moreover the fare has been maintained at five cents, an achievement which few, if any, other cities in the United States can boast." The mayor also called attention to the small overhead cost as compared with publicly-owned utilities, saying "the city's system has no highly paid executives nor costly legal counsel, the city officials being the executives and the legal department being in the hands of the city attorney." Referring to the large depreciation fund of 18 per cent of the revenue, the mayor said: "Experts all over the country agree that 18 per cent of the revenues as a depreciation fund is excessive." Mayor Rolph's letter is a sample of the other



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letters received from various parts of California, not a single case of failure being disclosed.

The power companies contend that regulation and not ownership is the proper thing, frequently growing quite enthusiastic in their praise of the benefits of regulation. This argument, however, falls on deaf ears, as the people know from experience that the benefits of regulation are altogether one-sided. This is said without any reflection on the Railroad Commission, as it is the system and not those charged with its administration, against which our opposition is directed.

Regulation was foredoomed to failure for a number of reasons. In the first place every proceeding for an adjustment of rates must necessarily be based on evidence submitted by the company. Moreover the officials of the company are thoroughly familiar with every detail

of their business, something which it is manifestly impossible for the people's representatives to learn in the comparatively short time at their disposal.

Recent court decisions have likewise had much to do with discrediting regulation. In one case the court decided that in a proceeding for the adjustment of rates, the municipality as such was not a party, and that therefore the city had no right to appear officially as a party to the proceeding.

Another recent case in New Jersey has developed a more severe indictment of regulation. In that case a street railway company serving more than two-thirds of the population of New Jersey participated in a hearing before the railroad commission of that state, running over a period of thirteen months and involving thousands of pages of testimony. Not liking the decision, although rates were not involved, the street

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Webber, Chairman of the Board of Supervisors of Napa County, wrote on Feb. 20, 1922:

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California Corrugated Culvert Co. Los Angeles
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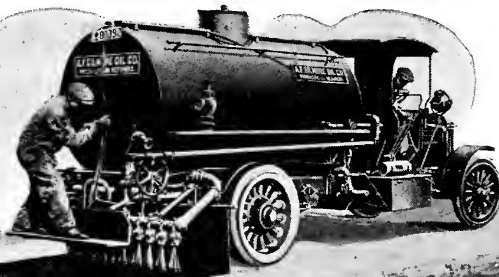
railway company made an ex-parte application to a Federal judge for an injunction and succeeded in not only securing the injunction but also obtained an increase of rates. This case points out one of the most serious defects in regulation and that is this: That when a municipality or its rate-payers are dissatisfied with a decision of the commission, there is no appeal; whereas, on the other hand, if the company is dissatisfied they can nullify the order of the commission by appealing to the Federal Courts and alleging confiscation of property.

In New Jersey, as in California, the company had a right to appeal to the state courts, but they ignored this right and went directly to a United States Judge.

The proponents of the act, as a further argument for its endorsement, say that one of the chief advantages of public as against private ownership

lies in the fact that the state and its political subdivisions are able to borrow money at a much lower rate of interest, due to the fact that as governmental agencies they have the right to impose taxation, if necessary, in order to pay the interest and principal of an indebtedness. The records show that they never resort to this taxing power, the rates being fixed in all cases so that all these charges are paid from the revenues. However the fact that they have this power makes public bonds so much more attractive than the bonds of a private corporation, and money can be borrowed for public enterprises for that reason at a rate averaging from twenty to thirty per cent lower than the rate which private corporations are compelled to pay.

Another thing which makes for economy in public ownership is the fact that all debts incurred by the state or its political subdivisions must be repaid,



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whereas the private corporation is obliged to take care of interest only. This fact that the public must amortize its debt results in a constant decrease of interest and the ultimate retirement of its capital investment, whereas, the privately-owned utility is constantly pyramiding its debt and piling up more interest, an ever increasing burden to be borne by the rate-payers.

Then again is the great advantage that under public ownership and operation it is not necessary to set aside any of the income for profits, whereas, the private utility company must provide for dividends to its stockholders; in other words, the private company is engaged in business for profit. On the other hand, the municipality or other political subdivision is not required to make any provision for profits, all surplus going back to the taxpayers.

Another advantage, as was stated by Mayor Rolph, is the fact that the public corporation is not burdened with the heavy overhead which the private corporations are obliged to pay. For example, the president of the Great Western Power Company, through his control of that corporation, pays himself an annual salary of \$50,000 per year, being five times more than the salary of the Governor. This salary is paid him despite the fact that he is a director of more than a dozen other corporations and consequently unable to devote more than a fraction of his time to the power company. The records filed with the railroad commission show that all the higher-ups in the privately-owned utility companies are paid excessive salaries aggregating in the case of each company hundreds of thousands of dollars annually.

And by the way, is there any record of the railroad commission ever objecting to the payment of such salaries and refusing to allow their payment as a part of the operating expense?



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As I said before, the private company is engaged in business for profit, and that being the primary object of its creation, it resorts to all sorts of expediences to enhance that profit. One of the commonest methods resorted to for this purpose is by means of false contracts and the purchasing of additional holdings through dummies at fictitious prices. The Railroad Commission has been able to thwart some of these fictitious deals, but in many instances they are covered up in such a way that no commission or other public body could ever discover them.

Water is one of the three great natural resources absolutely essential to human life. The act of impounding it enables it to be utilized for three separate and distinct functions, to-wit, power, irrigation and flood control. Irrigation and flood control have always been recognized as purely governmental functions. It is repugnant to our idea of government to delegate to a private corporation

the power to say how much or how little water should be permitted to flow down upon the lands below for the needs of irrigation. It is equally repugnant to delegate to a private corporation the right to control floods. In fact no one will dispute that both of these functions are of a governmental character and should remain so.

Assuming for the sake of argument that the generation of power might be suitably held as a proper function for a private corporation, it will be readily conceded that, under the circumstances, the only interest of the private company would be to impound water for the generation of power without any regard whatever to its further use for irrigation or to its restraint for the control of floods. Moreover, the time has come when hydro-electric power can be generated and distributed more cheaply than any other kind of power, and this means that the development of our hydro-electric resources should be

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made without delay; in fact, it is our duty to see that no time is lost in developing these resources. As a consequence the time is rapidly coming when every wheel that's turned and every lamp that's burned in this great state will derive its energy from hydro-electric energy.

The City of Los Angeles is the best example we have in this state of the wonderful advantages of public ownership and operation. Situated in a more arid region than the cities on San Francisco Bay, it not only has an abundance of pure mountain water but the people enjoy a water rate of one-third the amount paid in the bay cities, likewise a power rate forty per cent less. The people of the bay region may conduct all kinds of booster campaigns and shout from one end of the country to the other about the superior advantages of Northern California, but they will never find any arguments as persuasive as the low water and power rates which

can be offered by the City of Los Angeles. Many of the men who are now shouting so loudly of the superior advantages of the northern part of the state are aligned on the side of the power companies in this great fight, blinded to their own interests and refusing to see the light. San Francisco is the logical place for the great city of the west. It has the climate, the harbor, and the logical situation. But because of the short-sighted policy of many of its leading citizens (so-called) it has dropped back into second place. Los Angeles, without any of these natural advantages, has become the first city in population and is rapidly catching up with San Francisco in commerce and industry. Much of its progress is unquestionably due to the superior advantages it possesses by reason of having an abundance of cheap water and power. What Los Angeles has done, the Water and Power Act will enable to be done for the whole state of California.

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private express companies shouted socialism, and for years they maintained expensive lobbys in Washington to prevent its adoption. It was the same thing with the Panama Canal, the Federal Reserve Bank and every other great enterprise undertaken by our government. And yet, thousands of little bankers and bondholders throughout the country, without enough vision to see beyond their noses, are ever ready to do the bidding of their masters and hold back the progress of the country.

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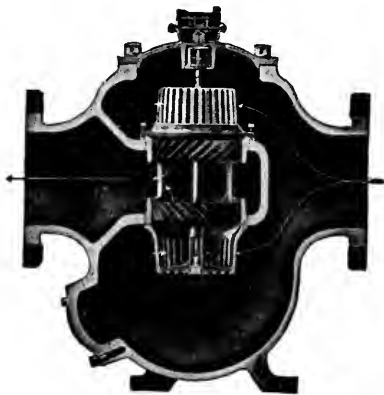
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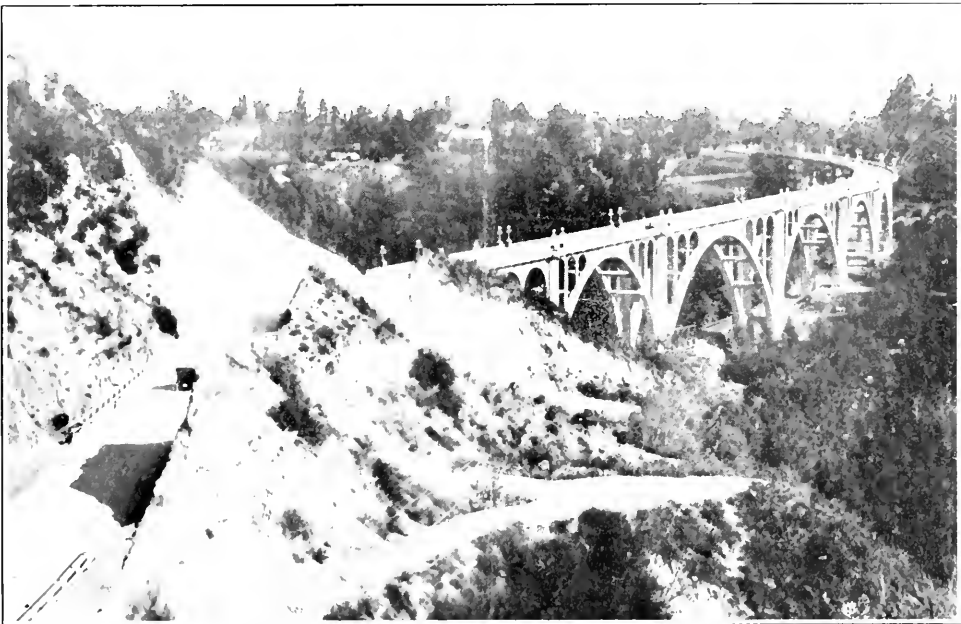
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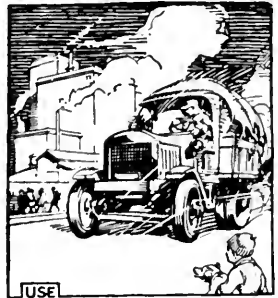
LEADING ARTICLE IN THIS ISSUE

PROCEEDINGS OF THE TWENTY-FOURTH ANNUAL CONVENTION
AT STANFORD UNIVERSITY

Debate on the Water and Power Act - - - - - Page 323

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NOTICE—Every city belonging to the League of California Municipalities is entitled to a copy of this magazine for each of its officials without extra charge. If not received kindly notify the Secretary.

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PROCEEDINGS OF THE TWENTY-FOURTH ANNUAL CONVENTION AT STANFORD UNIVERSITY

DEBATE ON THE WATER AND POWER ACT

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Berkeley, Cal.—University Ave., between Milvia and Shattuck Ave. Pavement laid in 1910, consisting of a 5 $\frac{1}{2}$ -inch asphaltic concrete base and 1 $\frac{1}{2}$ -inch asphaltic concrete surface, (Topeka Type). Present condition—good. Maintenance cost—nothing. Photographed November, 1921.

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PROCEEDINGS OF TWENTY-FOURTH ANNUAL CONVENTION OF THE LEAGUE OF CALIFORNIA MUNICIPALITIES

HELD AT PALO ALTO, CALIFORNIA, SEPTEMBER 19-23, 1922

DEBATE ON WATER AND POWER ACT

Palo Alto, Thursday, September 21, 1922.

President Bartlett: The discussion will now proceed on California's Water and Power Act. The debate will be opened by Mr. Rudolph Spreckels, who will be allowed three quarters of an hour, or such part of it as he desires. He will be followed by Mr. Allison Ware, against the Act. Then there will be discussion from the floor, from accredited members of the League of California Municipalities, under the five minute rule. At the conclusion of that discussion Mr. Spreckels will be allowed the balance of his hour in which to close the argument. I have great pleasure in introducing to you Mr. Rudolph Spreckels. Mr. Spreckels, perhaps more than any other man in California, is responsible for the putting upon the ballot of California's Water and Power Act, an act which is regarded by many people as one of the most important measures which has ever come before the state of California—which in their judgment will mean more for the prosperity of the state than any other economic measure upon which you have ever had an opportunity of

voting. It is, therefore, with great pleasure that I introduce to you Mr. Rudolph Spreckels.

Mr. Spreckels: Mr. Chairman, members of the League of California Municipalities, guests, ladies and gentlemen: The people of California are going to be asked to make some very important decisions at the election to be held on November 7th. I understand that there has been discussed before this body some of those problems relating to the public welfare, to the protection of the initiative and other progressive measures, and particularly to protest against the corporations' measures which contemplate putting your municipally-owned enterprises under the Railroad Commission, and to make them taxable. I am gratified to learn that your organization has gone on record in opposition to those things, those two measures, and in favor of sustaining the initiative as it now exists. It is appropriate that a body such as this should have discussed before it these important problems. You represent every section of the state of California,

and I think it is proper that after this discussion and the various discussions which will take place in the future here before you adjourn, there should be carried back—the result of that—to your constituents. The opponents to the measure—the reactionary interests in the state of California, represented by the power corporations in this instance, and by various banks and interests allied with them, who gain favors from the corporations through the deposit of huge sums of money—are fighting day and night in opposition to the consummation of this, what I believe the most forward bit of legislation ever proposed to the state of California.

I think that it is proper that I should qualify to a certain extent here, so that you may know that I have had some experience, both in finance, in business and in political matters, to warrant me in passing some intelligent judgment upon this fact.

In the first place you may remember that it was I who financed the graft prosecutions in San Francisco, expending hundreds of thousands of dollars to bring to light the corrupt conditions that existed in our community. It happened that involved in those investigations, and brought to the bar of justice were men connected with these very power companies that are now opposing us, and yet the security holders of those organizations maintain those men in their positions of power, and they are still active agents in opposition to the welfare of the people of California.

In about the year 1900 I had a definite experience with a public utility corporation, which I think qualifies me to pass somewhat upon the things that are involved here. At that time I had acquired stock in the San Francisco Gas and Electric Company, a local

corporation. I had bought the securities merely as an investment. The men on the board of directors were men of standing in the community, merchants and bankers, men of unquestioned standing and prestige in the community. Shortly after I had made my investment a competitive company came into the field. That corporation announced that the price of gas would be 75 cents per thousand. The price of gas at that time collected by our corporation was something like \$1.25. When I found that the stock that I had purchased at somewhere around 90 or more a share had fallen in the market to 36 or thereabouts, I became alarmed about my investment and at the next annual meeting I was elected a director on the board. I sent to the East for experts and accountants to examine the affairs of the corporation and I found rather an amazing state of affairs. I found that we had a padded pay roll; that the politicians of the community were sending their political workers to the manager from time to time, urging him to give employment to these men between campaigns. We had an extravagant management, honeycombed with, as I say, padded pay rolls, men that were useless on the pay roll, but all of whom contributed towards the expense of manufacturing our product, namely gas and electric current. I found for instance, that they had one man on the pay roll who received \$500 a month, whose single duty was to go to the City Hall once a month and collect the city gas bills. When I inquired as to why this servant was worth so much, I was told that Mr. Battles, the man in question, was an old politician and knew the ropes around the City Hall, and that it was worth while paying him that because he had no trouble in collecting the gas bill. I told them that I felt that if the bills were not right they

should not be paid, and if they were correct unquestionably the city would pay the bills, and I insisted upon the dismissal of Mr. Battles. That provoked quite a discussion in the management and I finally had to threaten to expose publicly this very matter, before I succeeded in having this gentleman dismissed from the service. I found that there was one gentleman on our bills—a consumer who did not pay his bills. Upon inquiry I found that that was the city gas inspector. I inquired why the bills had not been paid and I was told "Well, he is a city gas inspector." I said "The city gas inspector can make no trouble for you, and I want him treated as all other consumers of the company are treated. He was sent his bill and paid. We had no trouble with the city gas inspector. But the thing went along and I found, for instance, in manufacturing—I was amazed to find, that from a given quantity of coal—an identical quantity of coal—the variation in gas produced was tremendous from week to week. When I inquired of the engineer whom I called before the board of directors to account for this discrepancy, he acknowledged that it was due to the fact that if the retorts were too cold when the oil was injected it made a gas tar and if they were too hot it made lamp black, and we did not get the result in gas. Then I said "Mr. Jones, it is a question of faulty manufacturing." He agreed. I said, "From this day forth there is not going to be any faulty manufacturing." We found, among other things, that there were tremendous leaks in our gas mains; great quantities of gas were escaping to the atmosphere and never reaching the consumers, apparently at all and there was no object or incentive at all to economize or to stop the leaks, because we were then regulated, not by the Railroad Com-

mission but by the board of supervisors, who were the regulatory body, having the same powers and functions to fix rates as are now enjoyed by the Railroad Commission. But each year—I think it was in the month of April—our accountants and engineers went before the city authorities, and presented their figures, and they were looked over and of course we showed that our cost—we could demonstrate that we were spending so much money and that we were entitled to rates that would recover that for us, plus a return upon our investment. That is the vice and the danger to all of us in regulated monopolies. One of our opponents, in fact the man in charge of the campaign on the other side (Mr. Cullinan) has taken occasion to criticize my statement. I made it the other night before the City Club in Berkeley and I stated it here, but Mr. Cullinan chooses, as they generally do, to twist it into something else. I said to him that cost plus was the basis of regulation, and they presented an argument by an investigating committee of the legislature, indicating that it was not based—that rate making was not based upon a cost plus system. I have demonstrated to you, I think conclusively that it is. I am satisfied that the Railroad Commission has neither the ability nor the facilities for analyzing the costs of these public utilities in order to fix an honest rate. In order to illustrate that I am going to call your attention to something that is definite, and where you will have to come to that conclusion, I think. The city of Redding some eight months ago acquired the distributing system—an electric distributing system. They went before the Railroad Commission and the Commission fixed a valuation of the properties owned by the Pacific Gas & Electric Company, and in addition to the ascertained value allowed

them some \$17,000 for separate charges and other items, so that the city of Redding really paid to the Pacific Gas & Electric Company \$17,000 in excess of the real value of that property. Those having the affairs of the city in charge decided to continue to charge the rate theretofore charged by the Pacific Gas & Electric Company, and they made a contract with the Pacific Gas & Electric Corporation for the purchase of electric current at wholesale at a price agreed to by the company and fixed by the Railroad Commission—presumably adequate, and showing a profit to the corporation that sold it. And this amazing thing has developed: The city is earning actually 44% upon its investment, and it will have paid for the entire project, including the \$17,000 assessed value, within a period of two years and two months. Now I ask you in all conscience, doesn't that demonstrate that either private monopoly is extravagant and wasteful in the operation and distribution of its electric current, or that they so manipulated their affairs before the Railroad Commission that they are earning 44% on their investment? Now what other conclusion can you come to. Now, are you going to be penalized? Are you going to have that sort of thing go on in California? Do you want private monopoly to come here and to have a strangle-hold upon your community? Do you want them to own the water and the power of your great state, and after having acquired all that there is, to hold you in bondage forever after? Is that what you want? Is that your conception of your obligation to yourselves and your community and to the state? It is not mine. (Applause.) Now, to go back a little bit as to my qualifications, my understanding of corporation operation. I am dealing in facts. I don't pretend, either from ex-

perience or from desire, to be an orator, or to appear here, through pretty phrases or other oratorical effort, to carry you away. I want to give you, and bring you face to face with the plain facts as I know them.

When I was a boy of 17 I was employed by my father in his sugar refinery in Philadelphia. He constructed a plant there in order to meet the competition of the American Sugar Refining Company, which was the first trust organized in the United States. That organization came to California where my father was operating a refinery, and demanded that he sell his refinery to the sugar trust. My father said that he had always been his own boss, that he had always been able to manage his own affairs, and that he had no desire to sell his property. Thereupon the American Sugar Refining Company established a refinery in opposition to him in San Francisco and cut the price of refined sugar below cost, taking tribute from the people in other parts of the United States where railroad and transportation rates prohibited my father from competing, and intended and probably would have succeeded in absolutely driving him out of business and destroying his wealth; but my father proceeded to invade their own territory, and he chose Philadelphia as the point to bring forth his opposition, and it was there that I had my first lesson, and it has left a deep impression upon my mind, of what organized greed, monopolies controlled by the few, are capable of doing. Why, do you know that from time to time there were agents from the American Sugar Refining Company that were in the building and destroyed machinery in order to embarrass the operations of that refinery? Some of you have probably read the history of other corporations—I da Tarbell has illustrated and given

you definite information on other concerns that have acted in a similar manner towards their competitors. Later on we found that the American Sugar Refining Company apparently had minute information as to our operations, because we could see evidences of it. We finally set detectives to work and after investigation they concluded that they had sufficient evidence to put the charge directly up to our chief accountant. They had really gained information and evidence that brought him into the thing, and he himself confessed—and I heard his confession—that he was actually bribed by the head of the American Sugar Refining Company to make a transcript of our books each day and mail it to a tobacco merchant on Wall Street, who each morning carried that letter to the head of the American Sugar Refining Company, Mr. Harry Havemeyer.

Now, when you are brought up in that school, when you have had active connection with corporations that were honestly conducted—and my father did conduct his affairs that way and made his wealth upon an honest basis—you get some conception and some feeling that there is something wrong with people who now call me a traitor to their own class, crooked capital. I want you to know once and for all that I will never surrender in my whole life to the robber barons nor enlist under their black flag. (Applause.)

Now to bring me closer to the situation here, I realize the opposition of powerful interests—you must see evidence of it yourself every day, if you let your eyes tell you the story. Read your papers and see the advertisements that the power corporations are placing in your papers. I don't have to tell you the motive or the purpose behind it; your own judgment and knowledge of their activities in this

state must tell you the story of it. It must leave the definite implication and idea of what it all means. It means that they are buying editorial comment, that they are influencing and poisoning the channels of communication. They are dishing up to you daily misrepresentations and falsehoods; that is what they are doing; and they are buying papers in that manner—they are hiring their men who, for hire, will state anything—will take any position. I don't blame them. I suppose everyone has an aspiration to accumulate money, to provide himself with a little more means to take care of his family and to house them and to school them and give them privileges enjoyed by the rich. I don't condemn them, but I deplore it. I tell you, when a man sells his soul for dollars, when a man will betray his fellowman, to do the bidding of corrupt corporations and to throttle the promising development of your whole state for pay, I am sorry for him, I am sorry for him. (Applause.)

I have had my struggles and I have had to fight and combat things all my life. I have told you my experience as a boy with the American Sugar Refining Company. I will tell you something of what happened to me after the graft prosecutions. Just think of it! When I undertook that, I went forward in all good conscience, believing that as a citizen having money it was my obligation to clean up the rotten mess that every human being knew existed in our community. I put my money into that fight by hundreds of thousands of dollars, because I had agreed to finance the activities of an honest District Attorney. Evidence was presented to the Grand Jury. Numerous men of high social standing and wealth, connected with tremendously powerful corporations, were indicted upon evidence presented to the Grand Jury. Before

those men were named, before the facts were developed, when I went into my club, there was hand raising and napkins in the air. But I want to tell you that from the day that indictments were brought in and men of my own class, men of business prominence were indicted for bribing the municipal officers of our city, when I went into my social club, people were all busy with their food when I came in. They tried social ostracism. I was practically debarred from the homes of the people that I had associated with or my family had associated with for years. I think my record shows that that did not have any influence on me. Then they tried other various methods, underhanded, and in every way, to undermine me financially. They are even at it now. These same forces that are sending their agents out here to fight the Water and Power Act have come into the First National Bank and the First Federal Trust Company, of which I am president and have been for sixteen years past, and what are they trying to do? Mr. Requa, their representative—the man by every inclination who is a part and parcel of them; a man who was a director in our banks in 1916, and who at that time combined with others to oust me from the presidency—all for one reason, because I opposed crooked capital, and because I ran a straight bank. Now Mr. Requa called on me. His proposal was what? That the First National Bank and the First Federal Trust Company merge with the Crocker National Bank. When he suggested it to me, Mr. Requa knew that Mr. Crocker, the head of the other institution, had been interested in the Parkside Realty Company, one of the concerns that bribed the city administration back in 1905. Mr. Requa expected that I would not acquiesce in his suggestion or consider it, because

of my feeling towards the man who was in control of the other bank. But I want to say this to you: I feel that you have heard about my opposition to people and my not yielding, and wanting to have my own way. I can conscientiously say that I have lived up to every requirement, even in matters of that kind, where it comes to the institution where I have an obligation and a duty towards my shareholders. I told Mr. Requa that it was my obligation and duty as the president of those banks to present his suggestion to my board of directors and it was for them and the stockholders to determine, and not for me. He seemed rather amazed at that. The matter was presented to our directors and the matter was gone into, and it then developed that the opposition intended to have control of the merged bank. The purpose of that was very obvious. The Crocker family own probably 90% of the stock of the other bank, and in a merger such as was proposed, the Crocker family would have control under the law, which provides in national banks that a majority of the vote elect the board of directors. The minority is not represented except at the will and pleasure of the majority of one—an unthinkable thing, when you analyze it, but it is the fact, it is the law. So I said to Mr. Requa, "Mr. Requa, when it is all said and done, your real purpose here is to eliminate me from the presidency. That is your real object, isn't it?" He hung his head and did not either agree or disagree with my statement. But he followed it up instantly by saying "Well now, see here, if you drop your campaign for the Water and Power Act everything will be all right and smoothed out, and you would have no trouble." My reply to Mr. Requa was that I had gone into this thing in good faith, in the interest of my state and

in the people, that I had not made it my habit and that I would not start now in buying my peace and comfort, and to rid myself of annoyances, to betray the trust that I believe the people of the state of California have in me. That fight is going on. The opposition is seeking proxies and so are we. I don't know how it will be decided, but the story will be made public; whatever the facts and effects are, you will all know the facts, because I have made up my mind that I am going to be in the banking business. I can indulge myself in that, notwithstanding my opponents, and if the people want a bank that stands for clean banking principles, that does not gouge you, that does not demand commission, that won't betray their trust, such a bank will be in existence, whether it is in the one that I am at the head of now, or in some other bank in the future. (Applause.)

Now, there is a good deal said by our opponents here about the danger of this act putting too much power in the hands of politicians, too much power in the hands of the representatives of the people. Think of it, think of it! But they are not quarreling where we are leaving that power in the hands of a handful of capitalists who control and monopolize the business today, and who want to have every bit of it under their control, so that they may exploit you and the interests of the state. Now I say if you are going to distrust the representatives of the people, and prefer to leave it in the hands of men who have demonstrated, as I have told you, that when they have a monopoly, and when they want to destroy their competitors, they will take any means at hand—corporation destruction—yes, they will even go so far as to take human life. It may interest you to that there is a man in San Quentin

today, Plaudianus, who was sentenced to a life term, who was convicted on the confession of his own brother that he had been hired to destroy the home of our chief witness in the graft prosecution—Gallagher, the leader of the board of supervisors. They actually blew his house almost to bits. Fortunately no one was killed, but further their confession said that they had been employed to kill all the other members of the graft prosecution, including myself. They went so far as to tell in detail how they were going to accomplish my destruction. I lived in my home alone at that time, my wife and children being in our country home, and I had in my house only a butler and a laundryman, and I did keep a night watchman. Now they had planned to cultivate an acquaintance with the butler. They were going to persuade him to go out some night with them. They were going to give him knock-out drops, bring him back to the house between them, pass the watchman, using his latch key, and get into my residence and go up to my room and murder me in my bed. Now for three years I faced that danger of assassination. Outside of a watchman at my home who was there to protect my family I did not have a body guard. I went freely among the people, but I was guarded in having three revolvers on my person. Nothing happened to me, although there were other conspiracies I could tell you of. A man by the name of Wilhelm was employed to make bombs which he agreed to throw into the automobile which took Francis J. Heney and myself to the courtroom each day. An accomplice of his got rather disturbed about the situation and came to our chief detective, William J. Burns, and confessed his part in the plot, and took one of our detectives to meet this man, and the man actually made a bomb and exploded it in the

Berkeley hills and blew up a two-ton rock, as a demonstration of what he could do to Francis J. Heney and myself.

Now I tell you that I have no animus against legitimate capital. I have made money myself. I have been an important factor in various industries and undertakings. But you will not find any of my opponents telling you that I have got a dishonest dollar about me, and I know from actual experience that there is not a God-blessed excuse for a man being crooked. You can make money legitimately. It may take you longer, but I warn you all against short-cuts, because a dishonest dollar in your pocket is the rottenest thing you can have about you.

Now on the question of politics, I have passed over that briefly. They tell you this is pretty apt to put a tax burden upon you. You can not find it anywhere in this document, the Water and Power Act, because it is protected and proof against taxation. I don't like to mention a matter that relates to my own wealth and position, but I am going to tell it to you simply as an illustration, that you can not believe that I, who have gone through life accumulating money, and with some understanding of finance and business and the problems of the world, would deliberately be advocating something that was going to put a greater burden upon me. Now I have a large part of my fortune invested in real estate. Most millionaires like to put it in securities and not disclose that they are taxable or found by the assessor. I last year paid out for myself and family corporations over \$215,000 in taxes in the state of California on real estate. I can not evade that, I can not hide it, I am going to pay whatever I am assessed. How do you think I am going to advocate anything that is going to increase my tax

burden? If I have one selfish interest in this thing, it is to reduce my taxes. And this act is calculated to do that very thing, and it is easily demonstrated. (Applause.) You know that we are prone to vote for road bonds, highway bonds, public buildings and various other things that involve an issue of bonds and the payment of interest and the amortization of these securities. That means that from year to year our taxes must go up, because the increased burden voted by the people themselves requires it. So we will never get away from taxes except by the creation of new wealth, new taxable wealth; and that is what this act does. This act will encourage people to come here, to establish industries in all parts of California, whereas they are today restricted to Los Angeles. (Laughter and applause.) Now do you want to enjoy that? Do you want to get those industries in every part of the state? I applaud and approve all that Los Angeles has done. They have had foresight, they have had judgment, they have had community spirit, they have gone forward, they have taken their rightful place. We can not complain of that. If we sit idly by here and refuse to take advantage of these things that are going to make us great, that are going to promote our industries and bring people to our part of the state, I have no quarrel with them, although my interests are north, but I say to you that live and reside in the north and have your interests in the north, take a lesson from the book of Los Angeles and heed what they have done and apply it to your own position here.

Now let me illustrate. Under the Utility Act an eastern enterprise may look to California—the establishment of a manufacturing plant. Let us assume that there is not a Los Angeles to go to,

because that is where it goes now, after investigation; but let us assume that that condition did not prevail, but that we had the Utility Act, and what is its position? You know that a contract made with a privately-owned public utility is not worth the paper that it is written on, for the protection of the consumer that makes it. You know that the ink is hardly dry on that signature when the utility can go to the Railroad Commission and say the price is not adequate, although the Commission had previously sanctioned it, and ask for a higher rate, and get it—because they have been getting it—and it means that the men who invest a million or two or three million in a manufacturing plant in California and make a contract with a private utility are not protected a minute as to cost for power. How can you expect an intelligent man to risk an investment of millions of dollars in any community where he is going to a private utility, under the Utility Act, and make a contract that is not worth the paper it is written on. How do I know it? I have had a personal experience. I had a contract, or one of my corporations did, running over a period of ten years, sanctioned by the Railroad Commission—prices agreed to and prices satisfactory to everybody apparently when the contract was made, but in the last years of that contract I was actually paying \$90,000 a year more than my contract price called for. I don't want to deal in technicalities, and when they come and talk to you about average rates and cheap rates in California, lower than any other part of the world and all the rest of it, I will simply ask you to go and look at your own bill. You pay it, you pay the price and you can easily ascertain what the rate is. How many of you enjoy a low rate, as compared with Los Angeles or Palo

Alto, Alameda or any of those other communities where they have municipal enterprises? How many of you? Go and examine your own bill? That is the best evidence. I don't want to debate it or discuss it. All the discussion and technical analysis by engineers and their lawyers is not going to change the fact. They can take the interchange of power that they sell to each other at a low rate and of course it makes an average low rate, but you, the consumers, don't get the benefit of it; you are not getting low rates. You can count on that.

Now we have covered the political situation, the taxes, and we ought to deal somewhat, I think, with the economy of operation, possible mismanagement, and possible burden upon the state. Under this act remember that the board sits and is requested by political subdivisions, cities or communities properly organized to transact business, to put in a certain given project for the development of hydro-electric power or for irrigation waters or domestic waters. The board then investigates the project; finding it suitable for development, economically right, and provided it secures a contract for the sale of the product—be it water or power—it will proceed with the financing of the development. It at the same time gets a contract which insures to it all costs, plus a sinking fund and an amortization fund to retire the securities issued under this act for the protection of the people and for the state and its credit.

Now if you were asked to go into an enterprise and have all year costs guaranteed by responsible interests or community, and get all your investment back, you would be very well satisfied, excepting that you as an individual would want some excess profit, whereas here the state proposes to give that benefit to all of you—the people of this state—by supplying it to you at actual

cost. Mr. Scattergood has presented a situation—he has shown you that in Los Angeles the saving to the consumers is about equal to the total city tax rate. Now think of it. Talk about putting your tax burden up! If you can make a saving under this power act in the cost of your water and the cost of your current that will represent an amount equal to your taxes, wouldn't you be pretty well satisfied to have such a measure go through?

Now the protection of the money expended is safeguarded in two ways. You have the board which passes upon it. The board must apply to the finance committee created under this act, consisting of the governor, the controller, treasurer, president of the board of control and the president of this board. And all of their plans must be presented to the finance committee in detail and passed upon. Now in addition to that we have provided in this act that every activity of the board shall be open to the inspection to every citizen of the state of California. I was insistent upon putting that in myself. I insisted upon that, because I want you to know that I could not afford to give my name to this measure and to support the campaign for its adoption unless I felt sure that I could adequately protect and that others could protect their interests, and personally I shall see to it that I have accurate information at all times as to the activities of the board. I don't feel apprehensive about it in any way, shape or manner, because I think there are natural safeguards in the act, but out of an abundance of precaution I felt that every citizen is entitled to access to the operations of his representatives on this board. We have provided for a recall—something that does not exist in so far as the Railroad Commission is concerned; a very helpful thing indeed, as you probably all realize.

We have also provided for the removal of the board by a two-thirds vote of the legislature. So that we have safeguarded this from every possible angle in my judgment, and I think that its adoption and its operation will be satisfactory beyond anything.

Now as to the question of whether this act is calculated to be destructive of vested capital. That is an important thing. I would not be a party to it, I tell you frankly, if I felt that this measure were calculated to be destructive of vested capital. I don't believe in that. I have never been a destructive force in my life and I am not beginning now. I think I can prove to you conclusively that it is not a destructive force; and that it is not going to militate against the security holders of a corporation. I want to distinguish that, as between the security of corporation and the manipulators and managers of corporations, because there is a great big difference between them.

Now remember that this act contemplates putting the credit of the state of California to the extent of five hundred millions of dollars behind municipal political subdivisions and other projects for the erection of dams, the building of canals, transmission lines and distributing systems and all of that which goes with a water supply or an electrical operation. Now the five hundred million dollars is primarily—the bulk of it probably will be invested in the building of dams, in the conservation of water, the impounding of water in the mountains that now wastes to the sea—in itself a useful operation and clearly a state function. Annually we have floods, we have millions of dollars' worth of products that are ruined on the farms, and levees broken and lands inundated. This measure will also preserve those farms and their interests from flood damage. It will

augment your supply that will reach market that is now annually destroyed through floods. It will bring the thing down where you will develop your hydro-electric power as a by-product really, because when we impound and store waters in the mountains, they should be utilized by the very sources from which they come, namely at the point where the water is impounded and stored. Now how is that going to hurt the private utilities? Remember that they have outstanding today in excess of five hundred millions of dollars in securities, the proceeds of which are invested in hydro-electric development projects. The private utilities have gone before the Railroad Commission and stated their program and they have stated positively that they will have to expend upwards of one billion dollars in the next ten years to provide for the anticipated load which experience tells them inevitably is going to be put upon them. Now if they have five hundred million dollars outstanding, if they need to expend one billion, or as they say possibly one billion six hundred thousand dollars in the next ten years to care for the power needs of the people of the state of California, then how can this five hundred million dollars in any way injure their securities? How can it? You have a demand for all the power they are developing today. They demonstrate that themselves and they have gone before the Railroad Commission and are on record that they will have to expend a billion dollars and upwards in the next ten years in further development and extension. All in God's world that this Power Act will do is to relieve those corporations of the necessity of financing the full one billion dollars they contemplate expending on future development; and you are going to finance it at 5% instead of 9. That is not destructive. Take for an illustra-

tion, suppose we take a commodity, a food commodity or something that is absolutely essential to human life—and God knows water and light and power are essential. But let us say there is a demand for 2,500 tons of a given commodity that human life cannot exist without acquiring; that there is a production of 2,500 tons. Let us say the state owns and controls 500 tons; that the state could give away 500 tons, and the other private interests that controlled the balance of the 2,000 tons would get an adequate return on their investment—an adequate price. So that I am not standing here baiting corporations or making destructive talks against the security holders. I am against the men who operate those to their own advantage, the men who take their \$25,000 and \$50,000 salaries and begrudge every laborer a 50-cent raise a day. Those are the men that I am opposed to. They have no conscience. They are the men that were exposed in the graft prosecution in debauching your communities. You find them at Sacramento lobbying for measures for privilege, for greed, to augment their fortunes. They are in a position where they can deposit money belonging to the security holders in any bank they see fit—and it has been remarked that I am a detriment to the banks of which I am president because I do not enjoy the accounts of the power companies. Why, gentlemen, if I took their deposits I would not be a free man. Put yourself in that position. Suppose that a man having direction and holding control, deposits five or six or seven million dollars with a bank, and they come in to the president of the bank next day and say, "We would like to borrow half a million dollars." What do you think the banker is going to say? Is he going to be their servant? Is he going to give it to them? Of course

he is. That I am not going to be, and I don't want their accounts.

Now, as you go back home to your constituents I hope that you will carry the message to them—I hope that you will realize that this is a constructive measure, that in no part is it harmful to any legitimate interest on earth; that it is a forward-looking measure that will be helpful to the development of your great state; that it will lend to the happiness and comfort of your people; that it will relieve you of the arrogant, vicious group which tries to run your politics, which has got the greatest organization that has ever been created in the state of California—worse than the Southern Pacific in its worst day, one that many of you and I took part in eliminating from politics and control of our government; there has grown up a more dangerous system, because their ramifications are great. They have their agents in every one of your little communities; they have the privilege of using your papers and advertising and misrepresenting facts to you from day to day, and you, the consumers, pay the bill. I asked one of the Railroad Commissioners one day how it was that he could permit this flagrant abuse and misuse of the money of the corporations for advertising purposes, and for controlling sentiment in California, and he said “Oh, we don't allow that out of rates.” I said “Do you mean to say that the individuals controlling those companies, or their stockholders, are assessed to pay the advertising bills?” He said “No, I presume they pay it out of surplus.” I think you know where surplus comes from—it comes from rates, and you pay the rates. (Applause.)

President Bartlett: We are to have the privilege now of listening to an argument against the California Water and Power Act from Mr. Allison Ware

of Chico. He has been prominent in the affairs of California for many years and I bespeak for him your very earnest attention.

Mr. Ware: Mr. Chairman, ladies and gentlemen, I have been very much interested by the discussion that I have just heard. A good part of it was not new to me at all. I always knew that Mr. Spreckels was a respectable gentleman. I always knew that he was a man of a good past and of a useful tradition. I always knew that his record in public affairs was beyond reproach, and that whatever he did he did with good intent. I always knew that in regard to certain matters that he had done in the past his record was not only without reproach, in regard to intent, it was also without reproach in regard to wisdom. I regret therefore that in his present attitude, while his intent still remains at 100%, his batting average has now fallen to 50, so far as wisdom is concerned. I don't wish to assume what may not have been intended as a personality, though I did not like the way the speaker looked toward me at the moment that he discussed the hirelings of corporations. If the time has come before a convention of California municipalities that corporations indeed in this state, who for a generation have been developing its resources, and for ten years under your constitutionally guaranteed regulation, can not be heard to speak while any demagog may open his mouth and say whatever suits him, then our democracy is at a low ebb. (Applause.) And I denounce, and I deny the right of Mr. Spreckels, with all his aims and blameless past, with all the fact that he had a father who fixed him so that he didn't have to work, with all the fact that he has a class that he belongs to and a butler and a watchman in his home, none of which things can I boast—at the same time I denounce his effort to say to you, and with a side glance at

me, to imply that it bears upon me, that there is any man's money or any corporation's money under God's sun that can make me stand in public on a proposition of this kind for anything that I do not believe. While I was not left an independent fortune and an ability to control banks and to hobnob in clubs and generally to live a life the sort of which certain individuals appear pretty well to concentrate upon—at the same time there is not any man in God's world who, by his insinuations, his slanders, or his base innuendo can stop me from saying what I believe and honestly believe, upon a public question. So there you are. (Applause.) Now I have got that off my chest. That bothered me.

Mr. Spreckels reminded me, in his remarks regarding public utilities, and his story of the old days in San Francisco, of the opening words of a hymn which I formerly heard more often than I do now, I regret to say, and which began:

"Hark, from the tomb a doleful sound;
"Mine ears attend the cry."

Fortunately for Mr. Spreckels; fortunately for you estimable gentlemen—and there are some of you here I know—who are earnestly and enthusiastically for the Water and Power Act, we are not discussing the year 1900, or San Francisco at that time. There was a time, my dears, oh, yes, when the public utility corporation hoisted the Jolly Roger and sailed the high seas of economic freebooting. There is no doubt about that at all; everybody knows it. And there was a time also, my children dear, when—and let me whisper it to you—when Boss Tweed in Albany, New York, and Hinky Dinky Bath House McCarthy in Chicago and Schmitz and Ruef in San Francisco, made a travesty and a shame of municipal and state government all over the United

States. Fortunately for these gentlemen who want to turn over five hundred million dollars to a state commission, we are not talking about the year 1900.

Now, let us be fair; let us be just as square as partisans can be. Let us try to stop this business of attempting, upon a hocus-pocus basis of half-shown facts, to arouse feeling, to arouse prejudice, to arouse impassioned attitude that will not view circumstances and conditions as they are.

You know in the state of California during the last eleven years the Railroad Commission, working under your constitutional sanction, has regulated your public utility corporations. I have not heard any man in this audience—and it would be here if it were anywhere—I have not heard any man in speech, nor seen any in print yet, stand up and declare in plain terms, so that a man could tell what it meant, that the Railroad Commission of the state of California is either incompetent or corrupt. Who wants to do it? I have not heard anybody yet get up and say that they are rogues or fools, and until it is said, and said by someone who will specify facts and follow it by a proper indictment before a body of public opinion or anywhere else where such indictment will lie, why such insinuation is cowardly and unworthy of credence or belief. I know and you know that for the last three years people don't like raises of rates. Nobody likes them. We have had them and they have created discontent and dissatisfaction and suspicion and they have given rise to this wild talk, that there is a cost plus system on in the state of California and that there is no premium put upon thrift and economy and that corporations can spend all the money they want and still earn dividends from the rate payers of the state. That was investigated by the Inman Commission. You

know the result of the investigation. The result of the investigation of this commission, appointed by the last legislature—a commission logically appointed to look into the very matter that had provoked discontent in California, made the following finding:

“Your committee finds that the facts in no wise justify such a conclusion. It is apparent that the commission cannot prevent extravagant expenditures either in construction or operating costs, but by reason of its cost data records it can and does prevent the utility company from being protected in such extravagance.

“The commission does not in any sense ‘guarantee’ anything. In fixing a rate, the commission proceeds to find the fair value of the property, of the utility used and useful in the service of the public. It then puts its accountants to work analyzing and checking up the operating expense. It then fixes a fair return on the value of the property and fixes the rate accordingly. Out of that fair return must come interest on bonded indebtedness and borrowed money, amortization and losses before dividends can be paid. If the fair return happens to pay interest on the outstanding bonds and stocks of the utility, the company is fortunate. Otherwise it is unfortunate. Whether or not that fair return will pay a dividend to the stockholders or interest upon outstanding bonds is not taken into consideration by the commission.

“Consequently the only too common belief that ‘the more a company spends the more it earns,’ should be completely and finally discarded. And the further belief that the commission allows dividends on ‘watered stock’ is also without justification.”

This was your official committee, acting under the mandate of your state legislature; a suspicious and skeptical

commission, created for the purpose of investigating the feeling of unrest that had been caused by the raise in rates due to war conditions.

Since 1919 rates have been reduced. You don’t know of it; you haven’t heard of it. Nobody turns out to hold meetings and make speeches when rates are reduced. Nobody becomes impassioned and oratorical when, while he sleeps, his Railroad Commission does his work for him and cuts down on the cost of his public service. Those rates are still being reduced. No, this is not a question of a monopoly of a sort that was described or intimated to you. This is no issue at all of corporation control or state control—state ownership; but it is simply an issue between state regulation and control on the one hand and state-wide ownership on the other.

The figures that you have heard regarding the city of Redding—I don’t live a great way from the city of Redding and I have an impression that if there were any miracles pulled off in the city of Redding I would hear about them. All I can say in regard to Mr. Spreckels’ figures of 44% interest upon the investment at Redding is that I do not believe his figures are true, and I do not think anybody believes they are true except perhaps his own good self, because he would not utter them if he did not. As a matter of fact if it were a fact that the Railroad Commission of this state, as you have heard uttered in your meetings in the past and as I have heard uttered in your meetings in the past, guaranteed 8% upon the money invested in public utilities, who under the sun would ever invest any money anywhere else? Because you cannot have 6% guaranteed you anywhere else. As a matter of fact, the earnings upon stock, common and preferred, of all the public utilities in light and power in California

average less than 4%, as can be shown to you, and as has been shown to me from the records of the Railroad Commission itself.

Now I want to take this up from the standpoint of the interests of men and women who are interested in municipal ownership. A good deal has been said to you today regarding municipal ownership. In fact I have had two gentlemen preceding me upon the other side—Mr. Scattergood and Mr. Spreckels—and I want to say this: The effort is being made to bring partial and scrambled, hand-picked and misleading statistics into a campaign that has to be thoughtfully worked out with all the data. Let me illustrate what I have in mind. If I were to say that the citizens of Athens 2200 years ago had a higher type of intelligence and a better standard of civic virtue than the people of Palo Alto—and there is good authority that says it can be proved—what would that argue? Would it argue that we should restore in Palo Alto the conditions of Ancient Athens? Not at all. There is a little joker in the proposition. The joker is that four-fifths of all the people who lived in ancient Athens were not citizens at all; they were just slaves. So it is easy to say that in a certain city—Los Angeles for example, if they sell power for eighty-six one-hundredths of a cent a kilowatt hour, but they don't tell you at the same time that they are buying power at 1.14 cents per kilowatt hour. That is a perfectly worthy and proper proposition; I have no earthly criticism or objection to it. It may be the best kind of municipal policy; it may be a splendid way of drawing the Goodyear Rubber Company and other companies to your corporate limits. It may be building a city, but it is not the power business. Equally idle to take isolated figures, 2.2 per kilowatt hour, as the average household

rate in Toronto and compare it with an 8 cent consumer's rate in San Francisco and go away with the idea that if we could only have the Toronto system here, why then it would be 2.2 in San Francisco. Aesop once said in his short fable, "Once there was a donkey that kicked the lion, but the lion was dead." It makes a big difference whether you have all the facts or not before you begin to say these things. And what are the facts? The fact, in the comparison of any two systems in use must include your capital cost, the cost of your distribution and your load factor and your standby factor and your tax factor, taken from at least two different angles, and bookkeeping system and the physical conditions under which the whole job is done; and those have not been presented to you nor to any of you. There is not a man in this room, I don't care who he is or how well informed, that has yet prepared or seen prepared a business analysis of a sort that should be put before a stockholders' meeting by which capital of the sort that Mr. Spreckels represents, and honestly represents, would be sought to be interested. No such statement or tabulation has ever been made determining the actual economic efficiency in the production of kilowattage by public and private concerns, with all the variables taken into consideration, properly offset, discounted, and the equation extended—no truth analysis of the situation. It has never been done. I am perfectly willing to say, and I want to make it plain that I believe the municipalities of the state of California made a wonderful record in their municipal extensions and in their municipal developments. There is no question in my mind at all that very enviable records have been made in Los Angeles, Palo Alto and many other places in this state with local ownership and control of dis-

tributing systems, and in some cases in the production of light and power. But I say it upon faith and upon no facts that will stand the tests of an absolute audit and a business analysis. I believe it to be true, if it be true, that a favorable and worthy showing has been made—still I say to you this: That is no argument in the world for this state proposition; it is an argument, indeed against it. But I must get over the ground faster. I want to drive this point home to you; there is a difference between a municipally financed and a state financed proposition. The local responsibility for the expenditure of that money; the keen local interest in the management; the local personal accountability of the officers who run it; the observation that the newspapers and the taxpayers of the community give to a locally owned and financed proposition is a very different thing than the lack of all those things that is found under a bureaucratic commission or board of control over a state-wide system. There is that lack of clear local financial and personal responsibility and accountability. In fact it is the difference between local accountability and no accountability, under the specific law that we have now to consider.

Secondly, the physical problems are utterly and entirely different. Everyone knows what the city problem is. The city is a homogeneous community; it is the fat land, to use the Railroad Commission's language. It is the fat of the light and power distribution. It is a known entity. Its problems are fairly definite and certain and there is a table of experience behind those who wish to go into it. There is no table of experience, no crossing stakes, to guide on this new and perilous adventure.

Finally let me say this to those of you who have today municipal systems

and to those of you who feel kindly towards them and believe in them and want to install them in your city. If you believe in municipal light and power how can you believe these wild stories that you hear of the reduction of costs? Listen. The cities in California today that have municipal light and power are paying for their electrical energy a little over one cent a kilowatt hour. They are buying it under the regulations of the Railroad Commission, from the power trusts at just a little over one cent. What does Mr. Spreckels offer to you? What do these prophets, these seers, these ancients who view the future, who know to a newt's heel what will happen in a thing of this kind—offer to you as a saving in Palo Alto or elsewhere under state control? Do they offer you the difference of saving between 2.2 cents and 8 cents? They talk like that—44% on your investment. As a matter of fact if you got your power free you could not save more than one cent or more than 1.14 cents, which I think is the maximum saved by the municipality buying power. Don't you see what I mean? Any city today that likes the municipal idea has the right to establish it, and having it established, has power served to it at approximately one cent a kilowatt hour. Suppose you believe—it is asking a good deal of your credulity to believe it—supposing you believe that your city could furnish you at your transformer for a half a cent a kilowatt hour; would you, for the promised saving of a half a cent a kilowatt hour at your transformers, bond this state for 500 million dollars, to put across this Water and Power board experiment? That seems like business to you, does it? You would not underwrite or insure the safety of this system. You would not underwrite the purity of its politics. You would not attempt to protect it as a land of

opportunity for individual effort. Would you close the doors to those things forever for the sake of a promise but not an assured saving of one half a cent?

Gentlemen talk about 6 cents, 5 cents and 7 cents, and 44%, because the most you can possibly offer to any city in the state of California that has this municipal ownership will be a maximum saving of half a cent a kilowatt hour. You who have municipal ownership ought to turn this thing down; you ought to be harder against it than anybody else in the field. Why? For two reasons, two specific reasons, two very clear and definite reasons. One is this: That any city in California today that has its own municipal plant is dodging state taxes to the extent of at least 17%, for that is the percentage of state taxes paid by the light and power corporations through their calculated rates. Any city in the state today that has its own municipal enterprise is avoiding and evading its proper state tax burden to that extent. I am not criticising it. It is an excellent idea—an Anglo-Saxon idea, an ancient custom, a good example set by rich men; nothing the matter with it. But at the same time that is the condition that actually prevails in Los Angeles, only in Los Angeles they dodge it to about 30 or 33%, because they don't pay any state taxes in rates on water there, which is very good; it is a good idea. Furthermore, municipal rates in the cities that have municipal ownership at the present time are not rates that are determined upon an average rate for service in a fat, and upon service in a lean community, just exactly the way the rates are determined and established practically in cities that are not municipalized. So they have another excellent advantage. Both of these advantages they will lose forever if the 500 million

dollar bond act becomes a law, because the 500 million dollar bond act will municipalize, or is presumed to, and inevitably will municipalize the whole state, in which case the taxes will have to be laid in some other way, and the difference and advantage will disappear. Furthermore you will have to take care of the difference in rates between the city and country, or put the farmer out of business. So the advantage that the municipality that serves itself now has over the municipality that is regulated by the State Railroad Commission will also disappear.

Think about those things. It meets with the merriment of one or two gentlemen here. I should like to hear them in the five-minute time tell me why the city in the state of California today has not those advantages, which advantages will disappear if the 500 million dollar bond issue carries and becomes a law of the state. But apart from this entirely, we are promised cheap power; we are promised cheaper power. The ancient lure of cheaper power is held before us. We have been given by our Railroad Commission, or been led to believe that we have been given, as cheap power as could be produced under private initiative; but they say there is greater efficiency under public ownership. Salaries will not be so large. No one will draw \$30,000 or \$50,000. Has anyone come before you yet with a tabulated statement to show what the kilowatt production ratio is on private and publicly-owned projects, per unit of payroll? I haven't got the figures. Has any one of you got them? They would be very interesting. I think they would be very pertinent in this, rather than opinion. It seems to me they ought to be introduced before a board of directors who are asked to vote 500 million dollars. Now in the absence of those figures I believe

and conscientiously believe that, apart from small municipal projects that are under close local regulation and observation and supervision—aside from those acting especially under a state-wide commission or power board sitting as a jury and controlling a vast industry throughout the length and breadth of the state—that private initiative is more efficient and turns out a larger return on the dollar expended than public initiative does under those circumstances. That is simply my personal belief. You may not believe that. You may believe that public money goes further and that it is the private money that only gets the 50% on the dollar duty. You are entitled to your belief; but until you get more facts to back it up, remember that a conscientious man may differ with you on it, and I differ with you on it, and that nobody ought to vote 500 million dollars merely believing that public money is more economical and thriftily spent. It is a beautiful theory that a public utility will naturally spend other people's money more economically and cheerfully than a private utility. Accept it if you will; believe it if you must; it is nothing more than a faith. It is no more than a sweet breath-made opinion, that is all, not the kind of basis upon which 500 million dollars are commonly voted by men in their private affairs, though that may be the sign of efficiency in public affairs. In private affairs if you were a stockholder in an enterprise as vast as the state of California and had all your money invested and your time invested in it, as I presume you have, and some promoter came before you with a proposition of that sort with pretty figures scrambled and hand-picked so as to show a lop-sided view, not acquainting you with all the facts from any given angle of any given problem of the situation, what would

you say to him? Would you put up the 500 million dollars on that showing if it were your own money and not somebody else's money? But if it was your own money and you had earned it and had the ability to earn it, wouldn't you say, "Young man, just take my name off your boob list. I have heard from you bright-eyed promoters before." I know perfectly well if I had invested a dollar with Alexander Graham Bell when I was a young man—I would now have \$365.25. If I had gone in with Rockefeller at the time he started in his oil industry I wouldn't care how much gasoline cost today; and if I had put 5 cents, 10 cents or 15 cents with Woolworth into his business at the time he started, I would be in on the ground floor of the Woolworth building, and if I had loaned a dollar to Adam when he was a little boy and it had drawn interest at no better than 5% since, I would now own the world and the solar system and have a mortgage on all the nearest fixed stars. But I also know the difference between figures that are made to tell the truth, and those that merely fool the boob; we must make a thoughtful and careful analysis, based upon facts, before a board of stockholders such as the people of the state of California, in a situation of this kind can approve the investment of five hundred million of dollars.

Cheapness has been predicated to you upon the cheapness of state money. What your interest rates are going to be under state money, God only knows, but let me tell you what they are under Ontario's system. You have heard about Ontario. Ontario is the great and shining star of provincial, almost state-wide power and light development that comes down to us from Canada. I don't want you to misunderstand me. I believe the record of Ontario has been a wonderful record, an absolutely

wonderful record. Don't make any mistake about that. But at the same time I so despair of ever having people state the truth about it in a campaign of this sort, that when I hear the stories that are dropped about Ontario, illustrative of cheap financing, it makes me laugh, it makes me laugh. You remember, a year and a half ago when many of us who were not millionaires received from bond companies circulars advertising Province of Ontario bonds, payable in gold, both principal and interest, in New York, to yield 7.20%. Cheap public financing—why, there is a limit to it. There is absolutely a limit to the credit of any community or political organization whatsoever. Ontario found it. Ontario bonds today are salable or were salable last week, when a nice young gentleman talked to me about the weather and said he was also a bond salesman, and I asked him the question and he told me they were selling then to yield 5.20 to 5.50, and privately-owned companies' bonds were selling in California to yield from 5.70 to 6. There is some little advantage now. At the time, a year and a half or two years ago that I speak of, a seasoned privately-owned public utility bond in California was selling at a price to yield a lower interest than the provincial bonds in the Province of Ontario.

When Moses found himself with the children of Israel in the desert, he invented the first municipal water supply very simply—he simply smote the rock. If he had not had enough water he would have smitten the rock again. That would have been the only thing necessary. That was a miracle, and there was no limit to it, but is there to be no limit to this smiting of the vast rock of public bond issues, and will the stream always bountifully flow and be so desirable an investment that it will always be marketable, before the capi-

talists of the country? They are not all brave like Mr. Spreckels. Some of them want to make money. The timid capitalists of this country prefer the rates that are paid on privately-owned public utility bonds. For example, Ontario conclusively says no, there is no such guarantee. School districts, irrigation and reclamation districts, over-taxed and over-bonded in this state—and there are many of them—conclusively say no, there is no such guarantee.

We are told it will be cheaper because they are going to be tax exempt. How long is the tax exemption wrong going to continue and increase? Did you ever think about it? Are you pledging yourselves and your children and your money and your credit to the 500 million dollar bond issue in this state on the ground that you are going to have cheaper capital for light and power development on the theory that they are going to be tax exempt? That is a wild goose chase and certainly a wildcat promotion proposition, if you base it on that ground. They may be tax exempt. No one can promise you that they will be. Why, the income tax amendment to the Federal constitution provides for the taxing of all income, and there is a strong, well-defined, and, in my opinion, a very justifiable movement on foot in the United States today to put the wealth and the capital and the income of the rich man on the same basis as that of the poor man and make it all taxable per unit of income, share and share alike, all the way down the line. You may depend upon that. They talk to us about cheaper rates because of the fact that there is no risk. We have heard about that, too, that there is no risk; there cannot be any loss. There are three ways in the law of taking it up, if there should be a loss. The gentlemen who speak about this

matter are now very much more confident than they were at the time they made the law; at the time they made the law they provided three ways to take up the slack. One was to issue more bonds; another one was to dip into the public treasury; and this law carries with it—mark you this—a perpetual deficiency appropriation of unlimited amount. And third, they provided the right to take it from any other available funds which presumably may be the income from the one project to make up the loss on another project where the rates had not been able to maintain it. It is idle nonsense for any man to tell you that 500 million dollars—a half billion of treasure—could be expended without risk. It was not done in Ontario; it cannot be done anywhere. There is not that infallibility in the human mind, whether it be either privately or publicly controlled, that can handle that amount of money without risk. The only difference between public and private financing is this, that in this case the risk is yours. I know that heresy has been passed about, and that word has been spoken, and I know it has been said that you have to guarantee the bonds of privately-owned public utilities. No man ought to be able to look you in the eye today and tell you that, for it is no credit to him who utters it and no compliment to the man to whom it is addressed. You know that if one of these concerns goes bankrupt, or if its dam goes out up in the mountains, it means an incalculable loss and the ruin of the concern itself. You do not stand behind the payment of those bonds for one dollar or one farthing, and yet you do stand behind them absolutely and assume every risk, both physical and political, that this new enterprise assumes, and for the liquidation and retirement of those bonds at 100 cents on the dollar.

This law has not been discussed and I haven't time to discuss it. It would require a meeting by itself to have respects properly paid to the vicious features in it. I call the attention of those of you who have not read it, if there be any such, to these specific provisions of it:

In the first place it puts your water and power board into any business it wants to go into, absolutely without let or hindrance. It may enter into any field of manufacturing, of merchandising, or mining, or any industry. Some of us are not quite ready for that yet.

In the second place it has a blanket approval of the issuance of these bonds at any time that the Commission desires to issue them. I know quibble will be made on that. It will be stated that they must have first a requisition and a plan proposed and passed up to the finance committee. That is perfectly true. Once that is done the finance committee hasn't anything more to do than a board of supervisors has to do when an assessment regulation is put before it. It either approves it or sends it back, and it can do nothing but approve or be mandamused and made to approve it. The governor and his finance committee become the rubber stamp of that board in the issuance of these bonds. The Ontario plan never gave such fiscal power to its managing body. It never gave such absolute scope of authority to those who were formulating and executing the plans. It always provided first at one end for local review by the municipalities who were to contract with the hydro-electric commission, and on the other end with the lieutenant-governor, in counsel, upon whose discretionary fiat bonds or securities were issued.

There is one matter I should have spoken of a moment ago, that I must speak of now, because it has been

entirely omitted in all discussions that I have heard of this matter on either side of this campaign. I attempted to show you a moment ago that municipal ownership can be carried on at better selfish advantage today to the municipalities concerned than it could ever be carried on under the 500 million dollar bonding power act. Some have said, however, "What about the benefits to the wider districts and wider areas? Suppose such a section as the Boulder Canyon—the great Southwest of which we have been told that we are a part—wants to develop the Boulder Canyon project—an interesting project, desirable, well worth while. They can't do it. It is not a municipality; they must have 500 million dollars in bonds at once to do it with. Why, not at all. In 1913 and again in 1915 there was re-enacted a law which is now the law of the state of California, entitled "An Act to Provide for the Incorporation and Organization of Public Utility Districts." Did you ever read it? Did you ever hear of it, any of you? You don't want to hear of it, do you? If any of you do, and are in fear about this thing, look it up. You will find it in the Statutes of 1916, page 866, and you will find it adjudicated in the 44th California Appellate Reports at page 322. It has been passed upon and is perfectly plumb, tee-totally good law. What does it provide? This: Any district, large or small, two or more cities, two or more counties, or unincorporated areas, any portion contiguous or non-contiguous, can vote their bonds, build their projects, pay their bills and be just as happy as they please with any sort of a municipal project that they may desire, large or small, selling power among their members, wholesaling or retailing it outside of their borders if they desire, granting, so far as I know, every right and privilege to that project and to that

district, that the project or district could have under this⁷ law.

There is a certain number of people in this state who believe that all industry, let us say all shops and mills, should be communized, put through a sort of soviet sieve. I have always wanted to be around if anything like that happened; I would like to see the excitement. I never wanted to be around badly enough or never wanted to see it badly enough to really want it to happen. I am like a good many of you. I have thought that if a number of those gentlemen who wanted to have that thing happen would get together and put up their money and buy a mill somewhere, I would not have the slightest objection to their running it on communized principles, soap box oratory and buncombe, until the boiler burst. Go right to it. It is easy. I am not comparing these gentlemen with sovietism at all; I am merely using an analogy; but I want to say this, that I want to see any of them here whose hearts are bleeding, who desire to take the chance and to rescue the state—the state is a big proposition, gentlemen; it is going to be hard to rescue at this time. But there is a district down there in Boulder Canyon that needs rescuing. Go to it and God bless you. The law of the state of California today empowers you to establish a district, to vote your bonds and to pay your bills. It is all under local control, under local supervision. You make your own rates. You are free from the Railroad Commission. You have the whole world to work in. Go to it. If you don't like that, pick out any other place where it seems easier and go there and start it. I want to say this, that if a hundred projects, founded by an unknown, unnamed, unskilled board, without limitation as to its power, out of 500 million dollars of your money, for which you stand absolutely liable

in the last analysis—if a hundred such projects, commissioned and ordered at random throughout the state of California are a good thing, why isn't one a good thing first? The law is there. Step up here, gentlemen. Order your districts, large, small, slim or stout, your own faney; all you need to do is to pay your money and take your choice.

About the proposition of getting the state to vote 500 million dollars of easy money—of course we know in California it is easy money, for we have been told long since that we pay no taxes in California—everybody knows that. Children are brought up with that idea; of course the corporations pay the taxes in California. The Philistine has been delivered unto our hands and it is our manifest duty to despoil him, and the corporations pay all the taxes here. Therefore there is no danger of any sort that even if you do have to pay the taxes, I presume that the corporations will pay them. Who will pay them after we put all the corporations out of business is not quite determined yet. As a matter of fact there has been no source of payment of taxes, we are advised, that has ever been intended by the most ingenious tax dodger, that did not ultimately find the tax in the bottom of somebody's pocket—the only source that I know of from which taxes are paid. Let that point sink in. I want it to be remembered by every one of you that any area in this state that wants a power project serving a district can have it, and have it right now without any bond issue or bond board or the multiplication of jurisdiction at all.

Now, ladies and gentlemen, Mr. Spreckels made some remarks regarding the effect of all this upon the water situation, and particularly was great stress laid upon the Boulder Canyon project and what it would do for the

water interests of the state of California. I am rather sorry the Municipal League convention, from past experiences, and possibly from its present utterances, has somewhat given the impression throughout the state—and it may have been elsewhere—that California is in a pitiful plight from the lack of water development. I do not believe it is. I think California has the most enviable and remarkable record of any area on the face of the earth for its water development. I don't see anything to be ashamed of at all, or anything at all for us to bemoan in the showing that has been made in this state for water development. It is true we have a reclamation problem, and it is probably true that we will always have a reclamation problem. A state which has a seasonal precipitation as heavy as ours and in which the seasonal rainfall is as marked as ours will doubtless always have some reclamation and flood problem. In California today there are some two million acre feet of conservation of flood waters under dams privately or publicly constructed and now in existence in the mountains. Nobody has yet been able to prove that a privately constructed dam would not hold back as much water as one constructed by the state, provided it was just as large and as well placed. There is about one million acre feet and a little more now under construction. There is something over five million acre feet of catchment and reserve projected, and we think we have practically the total of available run-off reservation that can be made in the mountains of this state at anything approximating an economic overhead cost. All you do if you muzzle it, if you meddle with it, is to paralyze instantly the forces that are, and that have been at work attacking and solving the problem—measurably solved at the present time, soon to be solved so far as prac-

tical means can solve it—that is, means that can be financed.

Now, as to the matter of irrigation, what is your situation there? Frankly this: As men will tell you in the cities of the San Joaquin and Sacramento valleys, and there are men sitting in this audience who know from their experience that it is true; what we need now is not so much more water on the land as more farmers on the land that already has water. There are sections of this state where water is developed far past the demands of the soil; considerable sections. I saw a water proposition turned down, over five or ten thousand acres, last week, that would feed as many as 40,000 acres with a gravity flow, offered to the farmers, at a guaranteed cost of \$37 an acre, and they turned it down. They preferred apparently to pump their water and buy their power from the power trust. The power trust has apparently corrupted them. This state today is not to be ashamed of its irrigation development. Its irrigation development has kept fully abreast of the demand for irrigated land. Out of the ten million acres of land which can be farmed and irrigated in California, over six million is now irrigated, and 75% of that by gravity systems.

Furthermore, you know that reclamation is not a revenue-producing proposition; it has never paid. One speaker says power is a by-product of reclamation. It cannot be a by-product of reclamation. You have to figure, if you are going to fulfil the purposes of this law and get rates sufficient to pay the cost of operation, on retiring the principal, too. That is one thing that must be figured. Reclamation will have to be the by-product of power development, for reclamation is not revenue-producing.

Furthermore, irrigation in California is not revenue-producing. How many

utilities there are today serving water for revenue in irrigation I don't know, but I do happen to know of one. I don't think there are more than two or three large ones in the state of California. Selling water for revenue for irrigation purposes is a failure, ladies and gentlemen. It is only a success when a mutual company, or when a district undertakes it and taxes and assesses the benefit upon all the real estate and improvements within the district. That is the sort of irrigation we have in California.

Now, for the domestic supply. You would imagine the cities of this state did not have drinking water, and could not get it. There are only nine cities in California of over 10,000 population that do not own their municipal water plants at the present time. They can all have them at any time. Among them are San Francisco, Berkeley, Oakland (San Francisco is getting her system at the present time), Richmond, Berkeley, Oakland and Alameda could easily join and secure one. Every city in California either has or can immediately get a municipal water supply if it desires. There is not a thing in the world in this proposition that will give you a better prospect for reclamation, for irrigation, for a domestic water supply, than you have now, without the risk and hazard of your 500 million dollar bond issue—assuming a burden of this sort for the purpose of a proposed benefit, the blessings of which you do not now see. It is like the Happy Hooligan proffers that are being made to San Francisco to help her in owning her own water supply, whereas, she will never be able to avail herself of it unless she first yields her water supply and gives it to the state and into the control of the Water and Power Board.

Some other facts regarding this act—and it is not an act, but it is a constitutional amendment. Those who propose

it have the wisdom, the Mahatma-like vision and foresight apparently to want to engrave on tables of stone the provisions of this act. It has been made constitutionally. The salary of the president of the board is made constitutionally. The rate of interest on the bonds is made constitutionally and the percentage of power that can be sold by the board is made constitutionally. These men have prophetic foresight and oracular wisdom. They have cast in constitutional form minor statutory details.

Your Power Board, as authorized under this law, has no safeguards of civil service. I give Mr. Spreckels and his associates who drafted it credit for the belief that when they left out the safeguards of the general civil service—to be sure they can establish same if they want to—they did it for the very good reason that they knew that civil service was a handicap; they did it for the reason that they knew that any organization that wants to get efficiency has to have control of its personnel. It must be in a position to hire and fire, and to reward and to punish those who do well or ill. It must be in the same position in which private initiative is—able to lure the willing, the thrifty, the industrious and the ambitious and able to repress and to eliminate those of contrary dispositions and tendencies. So they left out civil service knowing well that it was a handicap. But believe me, handicap though it is, it is a handicap and a real one, it is a handicap that every system that they project of this sort must bear, or there is a worse handicap. There is the handicap of humiliation and shame that 100 years of experience in the United States has taught to fear and dread as a burnt child dreads the fire—the handicap of a big personal political machine built up for the purpose of advancing the partisan

or personal ambitions of a man or any group of men, with all the shame and inefficiency and corruption that inevitably follow it. That handicap is worse than the handicap of civil service which the framers of this act refuse to follow.

This act provides that the board may hold out of use waters, presumably for an indefinite period of time; that they may hold out from cities waters which are not used for a period of two years. As I stated, there is no review upon their decision to put in a project. I haven't time to read you the story of some of the failures made in Ontario and Toronto, but every one of you knows from your own personal experience, and every one of you who has observed public affairs knows that we prophesy in roseate terms generally more than we are able to perform.

The plans and estimates of a board of the sovereign power of this board should be subject to some discretionary review and approval, in order to make them safe.

The condemnation provision provides that this board by its own resolution may declare the necessity for forfeiting and taking any man's property and that such resolution is conclusive evidence of the public necessity for taking it. For the first time, so far as I know, since Magna Charta, has any such power been given or proposed to be given to a public body, save in the single case of the municipalities of California that now have that power regarding public utilities. They haven't any such power regarding private property not publicly used.

Recently at a polling place two worthies met. Said one of them, "Bill, look at this ballot. I can't vote for any of these candidates for constable; I don't know any of them." Said the other one, shaking his head, "Sam, I am just exactly in the same fix, I know them all."

There are two kinds of people in this state who are wisely going to vote against this proposition, those who don't know about it, and those who do. If there are any of us here with sufficient modesty to admit that we don't know all about it, let us study it, let us read it and think about it. If anyone with an open mind will take the act and read it and think about it, judging it in the light of his own mature experience and knowledge of men and human affairs, this state is safe on the issue here presented to it. But remember this—and I speak now especially to those whom I know to be enthusiastic believers in municipal ownership, whom I know believe profoundly in the efficiency and wisdom of public servants—and I don't say that satirically, for I have been a public servant and I was vain enough to believe in the enthusiasm and earnestness of my efforts at that time, just as I hope and believe you trust in yours. Let me say to those of you who carry enthusiasm for your own service with you all the time, just as you properly should, don't let this thing get away with your imagination and your feeling, and don't vote for it or work for it simply on the theory that it is going to make something interesting and very amusing happen in the state of California. You are no mere amused bystander. This is no idle experiment. This is no simple thing like taking a clock to pieces to see how it works. The future of this whole state absolutely turns and depends upon the action of the people of this state at its next election, in reference to this specific proposition. The time may come when, with wider experience, when, with the multiplication and extension of the municipal idea to larger and ever larger groups, that we will have the vision

and the wisdom to accomplish a work of this sort, when men will work in the average, as some of you city managers do, when men will work as hard and as well and as faithfully for the public as they will for themselves, and as disinterestedly. When that day comes, possibly something of this sort may be in store. Nothing can be hindered or hurt by its postponement of consideration. Let us use in the meantime the initiative that has made this state great; the individual strength, hardihood, thrift and spirit of adventure that has developed the resources of California and that, during the last decade has, through constitutional and legislative action, under the administration of the Railroad Commission, harnessed that spirit of pioneer industry and thrift and enterprise and hardihood—harnessed that, I say, with the companion idea of the maximum good for the general public, through the regulation of privately-owned utilities.

California has had a wonderful story in the development of its utilities. It is a story that has made a proud record not only in this state but wherever it has been imitated, and it has been imitated from one side of this nation to the other. The theory and the practice of uniting under that regulation for the public good. This present condition of prosperity and welfare, based on this system, here reaching its highest exemplification, is in your hands, and in your hands to enjoy—in your hands to protect, as well.

President Bartlett: In calling for a discussion upon the amendment, from this point forward I am going to ask for speakers from each side alternately. Who will now speak in favor of the act? Mr. Fred Wheeler, of Los Angeles.

STATEMENT OF CITY COUNCIL-
MAN FRED C. WHEELER,
OF LOS ANGELES.

For the Amendment.

Mr. Wheeler: Mr. Chairman, and Gentlemen: Before going into the remarks which I had originally intended to make, I just wish to answer two or three of the statements made by the last speaker.

He went into biblical history, and told about Moses smiting the rock. We have a Moses to smite the rock—the Spreckels Moses is going to charge us four and a half per cent, while Ware's Moses is going to charge us from seven per cent to fifteen per cent. That is all the difference between the two Moseses.

He mentioned to you about a dam washing out, and who would pay for it, intimating that if it was a publicly-owned dam, the public would have to pay for it, but if it was a privately-owned dam, somebody else would have to pay for it. He knew well that he was simply throwing camouflage at you, and he knew very well that the same people would have to pay the bill, no matter which dam went out.

The last thing he said was, "Don't hurry about this"—what were his words—"Don't hurry; postpone it." Yes, ladies and gentlemen, the Power Trust want the people of California to postpone taking over those things until they have had a chance to gobble up every available site in the state. That's what they want (applause).

As to misrepresentation, I will say that in the thirty-five years that I have been in public life in California, most of the time in fighting these fights, I have never seen an organization, not excepting the Southern Pacific, in the palmy days of the Southern Pacific, that poured out as much misrepresentation on a proposed public amend-

ment as the Power Trusts are doing in connection with this amendment at the present time.

He said, too, and they had their own literature passed out telling about it, that when the state authorities would come along and find a site or piece of land that seemed good to them, they would take it, wishing to have it inferred, and he knows it and the Power Trust knows it, that they would take that land without recompense. And they have quoted from the printed statement of the bill, and they stopped at a certain point and called that a finished sentence. I will tell you, ladies and gentlemen, with no personalities, a high-way robber is a patriot and a gentleman compared with those who use that kind of tactics to mislead the people, where thousands and hundreds of thousands of dollars are involved (applause).

There is an old saying, "Beware of the Greeks bearing gifts." I appear to you today as a Greek of another sort, bearing gifts. But we are going to show you that the gifts are real gifts.

Now, we of the south land have had a long, hard, bitter, expensive struggle with the Power Trust. We have beaten them, we have whipped them to a fare-ye-well. (Applause). And now they are looking to you for a conquest. And I say to you, as one from the south-land, we fought our fight, it isn't finished yet, we have won it as far as we have gone; we are going further. We are not here to play dog-in-the-manger. We are not here in a spirit of jealousy to say that while we have got something of the good things, we have unbounded prosperity, let us keep it south of the Tehachapi, and not let it go north"—no sir. We are not here for any such purpose as that or with any such thought as that. The State Water and Power Act would be of comparatively little

value to Los Angeles. But as an official representative of the city of Los Angeles, I say to you that we are going to the bat for the rest of the state, that they may get out of the clutches of the Power Trust.

President Bartlett: Two minutes more.

Mr. Wheeler: Oh, is it that? I am only started. But I will go as far as I can.

We took over the Edison System. Four days after we took it over, we reduced the rates ten per cent.

Mr. Moody, of Los Angeles: It had already been cut two per cent when we cut it ten per cent.

Mr. Wheeler: Yes. We reduced our assessment rate two weeks ago in Los Angeles from \$1.45 to \$1.26, a reduction of nineteen cents in our tax rate. And yet these gentlemen would tell you it is a pipe dream, it didn't happen, that it is a sort of a Christian Science treatment that we are giving to ourselves! (laughter).

I have got lots of stuff here, but my time is over.

(Cries of "Go on! "Go on!")

President Bartlett: Ladies and gentlemen, I want to say that if you wish to have Mr. Wheeler go on, or any one else during the debate go on, I will be very glad to allow them to continue, but that means the next speaker on the opposite side shall have the same time. Shall I permit Mr. Wheeler to proceed? I think we had better stick to the five minute rule. I would now like to hear from somebody against the Water and Power Act for five minutes.

STATEMENT OF CITY ATTORNEY J. O. GOLDSTEIN, OF CHICO

Against the Amendment.

Dr. John R. Haynes, of Los Angeles: Will you mention the gentleman's profession, Mr. Chairman? Is he a lawyer?

Mr. Goldstein: I am an attorney.

President Bartlett: Mr. Goldstein is an attorney from Chico.

Mr. Goldstein: Ladies and gentlemen: I had no intention at all to take any part in this discussion, but I have an object in coming before you at this particular moment. It is merely to state that I was very, very much mortified to hear Mr. Spreckels make the statement that he did concerning the qualifications of anyone who spoke against the Water and Power Act on an occasion such as this. May I quiet the feelings of Mr. Spreckels and also the audience by stating unqualifiedly that Mr. Ware's record as a man—

Mr. Allison Ware (interrupting): Mr. Chairman, I am perfectly willing to have my record disclosed by my enemies, but not by my friends. I won't stand for it.

President Bartlett: Mr. Goldstein will abide by Mr. Ware's request.

Mr. Ware: If anybody in the room has the power to add to or detract from my character, well and good.

Mr. Goldstein: Gentlemen, I don't represent the corporations, and I am a city official. I am speaking, however, as a citizen, and not as an official of the city of Chico. I would like to ask Mr. Spreckels to answer this one question, and I will be satisfied. I want him to state to this audience whether or not the Hetch Hetchy proposition of San Francisco is a success. And if it is not, why not. Furthermore, I would like to have Mr. Wheeler, of Los Angeles, answer this accusation, that the city of Los Angeles contracted to sell to the Goodyear Rubber Company power for almost half the rate that Los Angeles was paying to the power companies for it. That is the method of advertising which may be good, but, speaking of municipal ownership, it is subterfuge, and that is the real camouflage.

Mr. Wheeler: Do you wish the information now?

President Bartlett: Not now, Mr. Wheeler.

Mr. Wheeler: I have it.

Mr. Goldstein: I realize, my friends, that this act has been endorsed to a certain extent by the league. But nevertheless, I believe that we all have a right to our own personal opinions, and I am opposed to the act because I cannot believe that municipal ownership has been, is, or ever will be a success (laughter).

President Bartlett: Order, gentlemen, please. Give the speaker a chance. Everybody is going to have a fair chance in this court.

Mr. Goldstein: I am willing to take all I can get—I have no objection whatever, because there is no use in kidding yourself to believe what the other fellow does, whether he is right or wrong. A good many men here are just like lambs led on by other people who have a certain motive, a certain idea of putting on certain legislation which means something to them, irrespective of the public good. And this power bill is the greatest graft bill that was ever presented to a nation or a state for official government. And I feel and believe that no justification exists for taking five hundred millions of dollars of public money and trusting it into the hands of any commission. Say what you will, my friends, a good many of you here who deride what I said a moment ago, faithfully and conscientiously cannot tell me that municipal ownership has been an entire success. Yes, in isolated cases, in certain instances, it has. But take it as a whole, take it concretely, the mere fact that it has to do with the disbursing of public money by politicians, by hirelings, by men who get into office for one reason or another, and where merit

does not count first, indicates that you must have a system where there will be money spent unwisely, money used for corrupt purposes. And, my friends, I am saying nothing out of the way when I make the statement that even to-day in our own state government, commissions exist who have no right to live, who have no right to spend the public money of California and yet they do exist by the sovereign law of this state which created them, the same as you desire to put this amendment upon the statute books.

I thank you.

STATEMENT OF EX-MAYOR HORACE PORTER, OF RIVERSIDE

For the Amendment.

Ex-Mayor Porter: If the gentleman will stand right here, I would like to accept his challenge and answer him as to the facts, regarding the success of municipal ownership. In a single word, Riverside, where I presided for two terms as mayor and was officially the head of the water and electric light and power municipally-owned departments, twenty-seven years ago, bonded herself for \$40,000 to begin the municipal ownership of light and power, and has paid it all back out of the money earned, and in those twenty-seven years has reached the point where she owns a plant extending over her forty-one square miles of agriculture and industry, a plant worth \$700,000 out of the earnings and not out of taxes; and has put back in that time \$200,000 into the city treasury for useful purposes. Moreover, she renews the lamps, one hundred thousand of them, used by all people, after they have paid for the first lamp at wholesale—they use them forever free of cost every time they go dead. In addition to that, Riverside has made \$71,000 clear in

the last year, and pays, to start with, an exorbitant cost, \$1.81 a kilowatt hour, wholesale, to some of the private power companies, for what we retail at sixty per cent less than they do. We pay wholesale \$1.40 and \$1.87, which is double what Los Angeles retails to her people for. And yet on that, we sell sixty per cent cheaper than the power companies do at retail. This year we made \$100,000 profit on that basis, and can reduce our taxes that much, or put into much needed road service.

These are the facts, Mr. President, not a dream, not of something that these men challenge, but an achievement, along with Pasadena, along with Anaheim, along with Alameda, along with many of the cities of our state and of our country. The facts are that public ownership sells at enormously greater economy to the people and pays its way out of the business done. Those are the facts proven by actual experience.

Have I another minute?

President Bartlett: Two more.

Ex-Mayor Porter: One further point is this: The private power companies, regardless of the honor of contract and of word, three times broke their contract with the city of Riverside in the time of my mayoralty, and increased the cost eighty per cent wholesale to us, a proceeding immoral, a proceeding indefensible, a proceeding, by the opinion of that great economic writer, the President of Yale, immoral and indefensible; and until the great corporations of our country learn the honor and inviolability of contracts, they never can have public confidence or rightly serve the people.

In addition to that, they not only violated their contract with the city of Riverside, they violated them with the farmers who bought land and cattle

and pumped water on that contract agreement in all honor; and, violating those contracts with the farmers of Riverside county, they have put lots of them out of commission, and, in cases, have attached their farms for the power bills, that, under those excessive charges and immoral conditions, they could not pay.

Gentlemen, it is up to us to recognize the fact that public ownership of public utilities is the only final solution of this, if it is to be solved right. And what is the history as to public ownership? First we have had public utilities privately-owned, uncontrolled. That was impossible. Then we have tried, and the nation has tried, public utilities privately-owned, publicly-controlled, and England and France and Switzerland and Australia and parts of Canada have passed through that and found it helpful but not a final solution. California is passing through that. Our Railroad Commission has been helpful and on the whole, honest of purpose. But that is not the last word. It is a failure in the direction of avoiding these broken contracts and keeping down the cost. The final solution of public utilities for the people is public ownership of public utilities. (Applause).

President Bartlett: We will now hear from anybody desiring to speak against the act.

STATEMENT OF G. W. MEALS, OF LOMPOC

I will talk only a moment or two, Mr. President. I am not decided on this Power Act yet; so far as I am individually concerned, I have been against it, but I think that we are losing sight of the heart of this matter. There isn't any question but what municipal ownership has been a good thing—I don't

doubt that. I am not in favor of these public utilities procuring the waters of this state. I have been against that, and I so voted against that one year ago at Santa Monica. Now I am going to give this act thorough study. I am going to try to, I have been trying to get information here today in regard to the act itself—the question is whether the act itself will be a safe thing for the people of this state to vote for. That's all there is to this. Nobody objects to the state owning the water system; nobody objects to this Power Act, if it guards the people of the state of California, if it is such an act that it cannot be abused and that corruption and misuse and everything of that kind cannot grow out of it. But if the people generally, of the small locality, can have the same benefits that the larger localities can have; if, after I have studied this matter very thoroughly, and have become convinced that the act itself, regardless of objections of these corporations, is a good thing, then I shall vote for it. If I come to the conclusion that it does not protect the interests of the people of the state of California as it should, if it were to go into effect, I shall vote against it. That's all there is to it. The whole thing lies within the act itself. (Applause).

President Bartlett: Any one for the act? Major Kirkbride, city attorney of San Mateo.

STATEMENT OF CITY ATTORNEY
CHARLES N. KIRKBRIDE,
OF SAN MATEO.

For the Amendment.

Major Kirkbride: Mr. President and ladies and gentlemen: I come from a town that does not own its public utilities. I have a couple of illustrations of the experiences of that town that

have occurred within a month or two last past, that may be of value to you as illustrating certain phases of this question.

Our city council a few weeks ago was engaged in the question of fixing the license tax upon an amusement park—you may have heard of it—Pacific City. Across the waters of San Francisco Bay there is another municipality, the city of Alameda. Alameda has its own electric plant and sells its current municipally. It also has a privately-owned amusement park—you may have heard of that, too—Neptune Beach. We had before our city council, the attorney, a San Francisco attorney, representing our amusement park, in response to a letter directing the management of the park to appear and show cause as to why a very comfortable license tax should not be taxed upon the amusement park. Now, I want to ask you, what do you imagine was the argument that that attorney presented in favor of a no-license tax? This was his argument: That the tax in San Mateo, which is not, as I said, the owner of its utilities, should be low, because their competitor, Neptune Beach, was receiving its electric light current at a much lower rate, because it was furnished by the municipality! And in our city it was furnished by the P. G. & E. That is one phase as showing the advantage of municipal ownership.

Now another matter. My water bills last month reflected an increase made a month or so ago by the State Railroad Commission, in the rates charged by our local privately-owned water company. And the principal item of increase in those rates was this: An increase on the value of the plant represented by the outstanding bonds of the corporation. Now, it so happened that I, as an attorney in private practice, handled the matter of the acquisi-

tion by this corporation of its water plant from a former company, and at the time of that acquisition, as an element in the purchase of the property and as a factor in that purchase, in the negotiations between two private corporations, the present company insisted upon a lower rate on an issue of \$200,000 in bonds which were taken over by the former company, and that low rate was five per cent. Mind you, that was a factor in the purchase price of the property, and I had personal knowledge of the facts and the arguments that took place between the negotiators at the time it took place. When that matter came before the Railroad Commission recently, I insisted that the practice that had been prevailing for over ten years in the rates charged in that town, that the five per cent rate on this \$200,000 should not be increased, but that the amount of the capitalization should be taken out and any increase or any eight per cent rate charge should be charged onto the remainder of the property of the corporation. If that rate had been increased at the time of the original negotiations, then the ultimate price paid for the property would have been decreased, because it was a factor in the purchase price. Nevertheless, within the last few months, the Railroad Commission increased that rate from five per cent to eight per cent, and gave them a further gift of three per cent on \$200,000.00 or \$6,000 a year that doesn't absolutely represent any expense or any element in carrying on their business.

I say, therefore, that the rates that are prevailing and granted by the State Railroad Commission, you cannot depend upon. (Applause).

President Bartlett: Is there anybody now desiring to speak against the act? We will hear from anybody desiring to speak against the act. Mr. Cullinan, do

you want to take the floor against it?

Mr. Eustace Cullinan, of San Francisco: I would rather wait until I hear somebody discuss the act, Mr. President.

President Bartlett: Is there anybody desiring to speak for the act? Mr. Ingram, you are from—

Mr. Ingram: Redding.

President Bartlett: We will hear from Mr. Ingram.

STATEMENT OF CITY CLERK L. E. INGRAM, OF REDDING

For the Amendment.

Mr. Ingram: Ladies and gentlemen: I have no oratorical ability, and I do not wish to impose upon your time with any useless argument, but statements have been made in the arguments presented here today regarding the success or failure of municipal ownership in the city of Redding, of which city I happen to be the city clerk, and I wish to state just a few facts concerning the success of that system.

The remarks of Mr. Spreckels—there is only one difference between the remarks made by Mr. Spreckels concerning the city of Redding distributing system and those made by our neighbor, Mr. Ware, and that is that Mr. Spreckels was right and Mr. Ware was wrong (applause).

The city of Redding, after a fight for four years, and I am here to tell you that it was a bitter fight, against a Power Trust of the state of California, of which the Pacific Gas and Electric Company of Northern California is a powerful factor, finally succeeded in acquiring the electric distributing system under the act of which Mr. Ware spoke, and I think we have the distinction of being the only city in the state of California that ever undertook to carry out the provisions of that act and succeeded—and I am here to tell you

that it was difficult to do it. It ended with a decision from the Railroad Commission giving us a right to take over the electric distributing system of the city of Redding for a sum a little over \$57,000. A bond issue had been voted for \$40,000 to acquire that system with four years previously, which was insufficient under the ruling of the Railroad Commission, and they thought they had us, but they didn't. Four of our citizens came forward and advanced a total of \$5,000, three of them taking \$1,000 each of power in advance and paying cash for it, and the other one paying \$2,000 in cash in advance; and we borrowed \$10,000 from the general fund of the city, notwithstanding there was considerable protest on the part of inspired power company representatives and we sold our bonds at a premium of a little over \$3,000, and with that money we bought the system, and you may know from those facts that we had nothing upon which to start to make any much needed improvements.

So we undertook in the beginning to repair and reconstruct and maintain and operate our system from the revenue, and we did it. And in addition to that, since the 6th of December, 1921, up to the present time, we have repaid to the general fund of the city treasury of the city of Redding the sum of \$10,000 that we borrowed from it; we have repaid all but \$1,400 of the \$5,000 borrowed from those fine citizens of whom I spoke; we have spent nearly \$8,000 or \$9,000 for material in the reconstruction and maintenance and operation of the plant; we have paid \$1,200 as a first semi-annual payment of interest on bonds; and we have a surplus in our treasury today in the lighting fund of about \$1,800, which has not yet been transferred, thus contemplating a net profit for the year of approximately \$24,000, which we

originally estimated, when we went before the people of the city of Redding to vote that \$40,000 of bonds, as being \$12,000—we were away under our estimate, and when the result was finally shown in the facts that came forward when we began collecting the revenue, it was shown that it was double what we estimated.

President Bartlett: Your time is up. Is there anyone else here now desiring to speak against the act?

STATEMENT OF MAYOR L. F.
SINSHEIMER, OF SAN LUIS
OBISPO

Against the Act.

Mayor Sinsheimer: Mr. President: The debate, as it seems to me here today, has largely hinged upon the proposition as to whether or not we believe in public ownership of public utilities. I want to go on record at this moment as stating that I firmly believe in the ownership of every public utility—water, light, heat, power, and everything that goes in to make up the happiness of our citizens, by every municipality. But the question is on the particular bill which the people of California are asked to vote upon at the coming election. The gentleman from Los Angeles hit the nail upon the head when he stated that the city of Los Angeles is not and will not come under the provisions of the bill as it is presented to you here today. They act without it. They are not acting within it. They say to the rest of the State of California, and those of the small municipalities, you and I, "You come in; we stay out." And why? Under this bill a municipality is not permitted to raise a tax for the maintenance of any public utility which it may desire to install. Under this act, the overlordship which is created will be just as great an overlordship as the

Railroad Commission has today; that is to say, an overlordship of every small municipality in the state of California. You will not have a word to say as to whether you may or may not install a public utility, provided this commission does not think they can collect enough revenue from the rate payers to make it up.

Now, what is the result? The result is that every particular piece of real estate in your city, and the men who sit down and own real estate for the purpose thereby of amassing fortunes out of the work, out of the sweat, out of the toil of the people who live in your towns—they all go absolutely free, and you will not and you have not under this bill, as I take it, if I have read it correctly, the right to raise a single cent to pay the interest or to pay the principal on any public utility which you may desire to install.

Now, I want you to think over that. If I am wrong in that proposition, I trust somebody will right me in it. You have, if you wish, under the present law to establish a public utility, the right to do so; you can do it in any manner that you please; you can tax to do it or not tax to do it. And let me say this: The city of San Luis Obispo owns its own water system, it hopes before long to own its own light and power system. But when it does, if the law is available to it, it will take it under the present existing law, and will not take the chance of any overlordship.

I thank you. (Applause).

President Bartlett: Any one now desiring to speak in favor of the act?

STATEMENT OF CITY PLANNING
EXPERT GORDON WHITMALL,
OF LOS ANGELES.

For the Amendment.

Mr. Whitmall: Members of the convention: I shall like nothing better than

the opportunity to touch on several of the points raised by the opposition, but time will in no sense permit of that, and I am therefore going to touch upon only three of them, and upon those very briefly.

First, mention was made by the principal opponent of the act on this floor that, in the floating of this vast amount of bonds, it would necessarily increase the rate that would have to be paid for the money obtained on the sale of the state bonds, and comparison was made with certain private issues that existed at times recently past. It should hardly be necessary to argue that in detail, other than to make this one observation, that that amount of bonds and more is going to be issued anyhow, and it is only a question with us as to whether they should be issued privately or publicly. The bearing on the rate, you can easily deduce for yourselves.

The second point made, and I like to keep to the points that were made in the main debate, was this: Reference was made to the fact that, though the discussion previously was interesting concerning San Francisco, we were not discussing San Francisco in and about 1906. I must perforce take exception to that. We are discussing, probably not our friend, Francis J. Heney, at that time, or Mr. Spreckels or Mr. Abe Ruef, but we are discussing the elements that were involved in that fight then that are involved in exact ratio here today. There are the same elements that were involved when Rome was burning and during the French revolution, and during all of our history, those elements that had to do with exacting from the public of tribute by the private individuals, for giving among ourselves that which originally belonged to us and which should never have been given to them.

And finally, this point was made, and it was an interesting point—would have been far more interesting if it had been entirely true. The statement was made in referring to the activities of the Railroad Commission that, Oh, how we orated and got on the platform when the rates went up, but never did we peep a word when they came down. It depends entirely upon who is meant by "we." (Laughter). Mention has been made of the fact that, within a few days after the taking over of the control of the private system in Los Angeles, we reduced the rates at an average of twelve per cent. Within less than twenty-four hours, with sanction of the Railroad Commission, that remnant of system of the city under private ownership came down to the same rate, or approximately so. And it may not be oratory that they were going through, but I'll say to you that the only difference was the difference between squealing and oratory. (Laughter). It may not be oratory that we are hearing when rates are being reduced—by the inevitable competition of public operation. But there is a pamphlet that may not be known as oratory, yet it goes further, as Mr. Rowell told us today in the other pavilion, than any human word of the mouth—the printed word—and you all had it here in your cities. I leave it to you whether or not there is oratory or the spoken word or printed word when rates go down, as they are going. (Applause).

City Clerk Cuthbertson, of Mayfield:
Mr. Chairman—

President Bartlett: Are you against the act?

Mr. Cuthbertson: No.

President Bartlett: I want to hear some one who may have something to say against the act at this time, if there are others. Is there any one against

the act who desires to speak? Then you may proceed, Mr. Cuthbertson. Where are you from?

Mr. Cuthbertson: Mayfield.

STATEMENT OF CITY CLERK S. M.
CUTHBERTSON, of Mayfield.

For the Amendment.

It occurs to me, Mr. President, that a wonderfully efficient method of civic government is obtaining through our planning commissions. Unless our planning commissions will hire an orator and press agent, they have not a fair chance against the special interests. We are entertained by hired employees of the special interests at a convention where we were unanimous in regard to this measure a year ago, and if the convention wants to know anything pertaining to the merits or demerits of this subject, they should have employed one of their own members to argue for and another to argue against the subject. The same thing is true all over the state of California. Special interests go into Redding, they send letters to every voter in the city of Redding, they send speakers with the same warning that the Southern Pacific had, to keep out of politics. Let us trust the people to be fair. We have fine orators, brave soldiers, our people who give lives and their property to the public welfare in time of war, and we hope that many will do the same in time of peace. We are not going to ruin any special interests, all we ask of them is that they should have fair rates. But those special interests should keep away from the public debates. If the city of Redding wants a power distributing system, let them decide the question for themselves. Let the people of California, and not these special interests, interested from a selfish point of view, go out and tell

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the communities and people of the state how to vote on the subject.

President Bartlett: Is there anybody desiring to speak against the act? May we hear from you, Mr. Cullinan.

STATEMENT OF EUSTACE CULLINAN, of San Francisco,
President of the Greater California League.

Against the Amendment.

Mr. Cullinan: Mr. President and ladies and gentlemen: I have been waiting until some of the advocates of the act would discuss the act. What we are considering is a specific document, before the people of California, and all the talk we have heard in favor of the act has been about entirely extraneous matters. Devotion to municipal ownership is almost a religion, I am aware. with the people who compose this league, and we knew that when we accepted the League's invitation to come here and address you. But the question you are asked to investigate is not whether or not municipal ownership, here or there, has been successful. There have, of course, been successful municipal ownership experiments. Municipal ownership in the water, and particularly in the power business, as

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Mr. Ware points out, has a great advantage over the service of the private utilities under our system of regulation, because the municipality has fat territory, and is not burdened with the obligations that are placed upon a public utility, that of serving all the people in the whole territory covered, unprofitable portions of the territory as well as the profitable portions of the territory. And all discussions of the various municipal operations given there have nothing to do with the issue before the people of California presented by this act.

The present laws, as Mr. Ware has pointed out, give ample opportunity for any community or any group of communities to do anything in the way of municipal ownership or operation that they choose to develop. If any community, or any group of communities, has a feasible financially sound proposition, it can organize, it can finance, it can develop its proposition under laws as they stand today. There is absolutely no necessity, from the point of view of municipal operations

or municipal ownership, for the Water and Power Act. We have here, and it is only twelve years old, less than twelve years old, the Public Utilities Act, and it has teeth in it. The Public Utilities Act gives the people of California, through the Railroad Commission, ample powers to protect themselves against the old evils of unregulated, or virtually unregulated, public service operations. We have on the Board of Railroad Commissioners today men of character as high as we will ever find on any board, any State Water and Power Board, that any Governor is likely to appoint. And if you have a Railroad Commission composed of men of that character, and appointed by the Governor of the state of California and acting under a Utilities Act that has ample power, provides ample power to the Railroad Commission to protect the public, what in the name of common sense is the reason for scrapping the whole public utility regulation theory under which we have been acting and which is yet in its experimental stage, to adopt an entirely new scheme, where we

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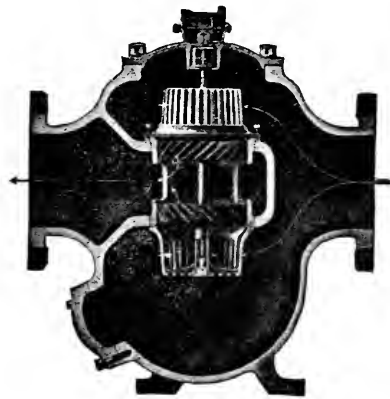
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are to get the most beneficent results, as they tell us, from a Water and Power Board appointed by the same official who appoints the Railroad Commission. If you can't get relief from the Railroad Commission, if the Railroad Commission has fallen down on the job, if the Railroad Commission has ceased to serve the public interest—and no one here has dared to make that assertion—but if you can't get that relief, how are you going to get relief of the kind you want from the Water and Power Board appointed by the Governor?

The problem before you, the thing you want to do, is to reduce rates. Your rates are fixed for you by the Railroad Commission of the state of California today. Much of the argument directed at corporate control and to the grabbing water sources of the state, and all that, relates to a time antecedent to the time of our policy of regulations, a policy instituted during the administration of Governor Hiram W. Johnson, and is not applicable to the conditions of today. There is absolutely no reason for the Water and Power Act. And that being so, it is the height of folly to take the risk, even if, as some of you contend, it is not a very serious risk—it is the height of folly to take any risk at all by bonding the state of California to the enormous amount of five hundreds of

millions of dollars under an act which is, as Mr. Ware says, a permanent deficiency bill.

President Bartlett: Mr. Koiner, city manager of Pasadena, rises—to speak for the bill.

STATEMENT OF CITY MANAGER
C. W. KOINER, of Pasadena.

For the Amendment.

Mr. Koiner: Mr. President: This act, as I view it, enables the people of California to put water on nine million acres of land, a large part of which will never be irrigated unless the state credit is used as an endorser to finance irrigating projects. And along with it will be a by-product known as hydro-electric power, that can be sold for a great deal less than you are paying for power today.

Now, the reason municipal ownership is discussed along with this act is because it can't be separated, because those who oppose the act state that no municipal enterprise has been a success as yet.

Mr. Ware: That is not so.

Mr. Koiner: It is to be inferred.

Mr. Ware: An unfair inference.

President Bartlett: No interruptions please.

Mr. Koiner: I want to say that we can point to many municipal light and

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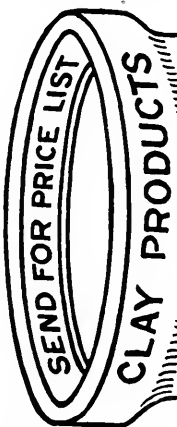
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power projects that have been successful, as highly so as water and other similar utilities, even gas. I want to answer one of the statements, a question of one of the speakers as to how much it would amount to if you could reduce the wholesale power rate half a cent a kilowatt hour. To Pasadena, it would mean \$120,000 a year to the light and power department—if we could buy our power for half a cent a kilowatt hour less than we are paying now. We have a steam plant, we can take the peak off even since before oil dropped, for less than we can buy power, because our standby charge penalizes us to such an extent that we have at times to run our steam plant to save our costs.

Now, I have managed that plant for fifteen years. We have saved in the pockets of the people, by reason of the difference in rates charged by our former competitor in neighboring cities except Los Angeles, two and a half millions of dollars in round figures. That is a large sum of money. But you can figure it out yourselves. During the war, everybody in our neighboring cities paid a nine-cent rate, top. We charged the same rate right through, five cents top. We only changed the lower schedule. We were selling power as low as \$1.02, and we changed that low rate to \$1.05 when oil went to \$2.18 a barrel, and we

began to buy power from our former competitor, and that was the reason for changing the lower step on our power rates. And we saved last year, and we charged the same rates that Long Beach, Santa Monica, or Pomona were paying, over \$300,000. We carried a surplus, after caring for the interest on the total average investment in the plant, all proper charges against it, and after allowing for taxes—which, by the way, would cost us a half a cent a kilowatt hour of the top rate that we charge residence users, not on all the current we sell, but on twelve billion kilowatt hours, only on a part of what we sell, that is all we would pay, and I believe we should take that into consideration and be fair as to what the cost would be if we did pay taxes, and I am not opposed to paying taxes to the state at the proper time, though I don't believe the municipal plant just starting should be burdened unnecessarily just at this time, though I do believe the time will come when all of those who advocate municipal ownership will be perfectly willing to pay that tax to the state; it comes out of the user's pocket the same as the dam that washes away, and we must add it to the rate and charge it in and pay it. I interrupted my thought there, but I think I have detailed to you that that is what it meant to us.



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Now, another thing: A great many cities have not the bonding ability to go ahead with large projects. This act will enable them to do what they cannot do now in that regard. And, of course, one of the chief reasons for it is that the state can borrow money for a great deal less than a private enterprise. We all know that. In hydro-electric power, seventy-five to eighty per cent of the cost is the cost of money. And I don't think it is right to take as the reason for the increased cost of money in Ontario, to ascribe it to state ownership in that province, when we know that the war was the cause of it.

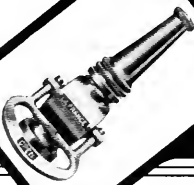
(Cries from the floor of "Heney! Heney!")

President Bartlett: Does anybody desire further to speak against the act? Mr. Heney, if nobody desires to speak against it, you have been called for, and will you speak for it for five minutes?

STATEMENT OF FRANCIS J. HENEY, of Los Angeles.

For the Amendment.

Mr. Heney: Mr. Chairman and ladies and gentlemen: I came here this afternoon with an open mind to be convinced. And I listened with a great deal of interest to the best oratorical effort of the day from Mr. Ware. He certainly presents his subject forcibly and well, and he is certainly well supplied with facts. I also listened with a great deal of interest to my friend, Mr. Cullinan, when he said he was waiting to hear somebody discuss this particular act. Now, I don't give a hang about the terms of this particular act myself. It is an interesting and amazing thing to me to see the representatives of the big power companies praising regulation. (Laughter.) Because it reminds me of when regulation was a new thing. When regulation was first proposed in the



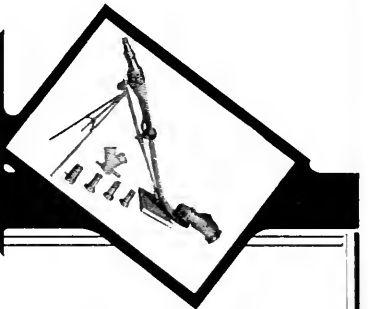
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Congress of the United States and demanded by President Roosevelt, I had a conversation with Mr. Herrin, of the Southern Pacific Railroad Company, in which he denounced with all of the zeal and earnestness that Mr. Ware displayed, this attack upon a private owner to run his own business as he saw fit. And that is exactly the viewpoint that all of the public utilities have on regulation—until they learned how to get around regulation and accomplish the same end.

Now, I was born and brought up a Jeffersonian Democrat. I thought the less the Government had to do with doing anything for the people, the better; that those who were least governed were best governed, to put it in the language of Jefferson. I never changed my opinion until I got into the San Francisco graft prosecutions, and was forced to learn something about political economy. Then for the first time in my life I really learned the

fundamentals of political economy. I also learned that every municipality that is corrupted is corrupted by privately-owned public utility corporations. (Laughter.) It started in the days of Boss Tweed, and it is still in full bloom. I also began to study the question then and I found that every state that is corrupted in its government is corrupted by the statewide privately-owned public utilities. Then I extended my studies a little further, and I found that our national government is corrupted and corrupted in its national conventions by privately-owned public utilities.

Now, I am wondering why the public utilities are opposed to this act. Mr. Ware talks about private representatives and individual efforts. With whose money? Why, yours and mine. Who furnishes that money, who buys the bonds, and who are the public utilities companies, the power companies, asking to buy their stock? Why, the servant girls, the domestics, the laboring men,



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President Bartlett: We will now listen to anybody desiring to speak against the act.

Dr. Haynes: Mr. Chairman.

President Bartlett: Doctor Haynes, do you want to talk against the act?"

Dr. Haynes: No, for the act.

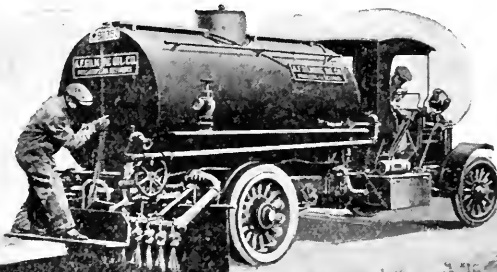
(Cries from the floor of "Spreckels! Spreckels!")

President Bartlett: As no one seems to desire to speak against it further, we will hear from you, Dr. Haynes.

STATEMENT OF DR. JOHN R. HAYNES, of Los Angeles.

For the Amendment.

Dr. Haynes: It seems presumptuous in me, Mr. President, an awkward of speech and tongue-tied manner of man, to pretend to debate with Mr. Cullinan, for instance, who is, I understand, the very high-priced attorney for the power companies in this matter. But when he stated that you cannot judge of this proposed act by municipal ownership, allow me to remind him of something that occurred in Congress just the other day. Reading the Congressional Record, I saw that the cyanide manufacturers on the American side of Niagara made the plea that they wanted an increase of tariff on the product, because, they said, they could not compete with the manufacturers of cyanide on the Canadian side of Lake Ontario, for the reason that they had to pay twice



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as much for their electrical energy as did the companies who bought theirs on the Canadian side, and the commissioner of Ontario not only does business with municipalities, but with farms three hundred miles away from the source of power.

I would like also to ask Mr. Cullinan and Mr. Ware if this Public Utilities Act of which they now seem so proud and so fond, was not as bitterly contested, both in the Legislature and out, by them, as they are now contesting this present act?

Again I would like to say, in reference to Mr. Ware's statement, that I am a member of the Public Service Commission of the city of Los Angeles, and one year ago we sold thirteen and a half million dollars of bonds, five per cent bonds, and eighty-nine cents on the dollar, while the Edison Company was selling at the very same time Edison Company six per cent bonds at eighty-two and a half on the dollar. That is in answer to his assertion or inference that privately-owned utility bonds sell to better advantage than municipal bonds. (Applause.)

(Calls from the floor of "Spreckels! Spreckels!")

President Bartlett: Mr. Spreckels now has eight minutes left of his hour.

STATEMENT OF RUDOLPH SPRECKELS, of San Francisco, in reply.

Mr. Spreckels: You know, I find the public utilities privately-owned sometimes make bad investments. You have had some evidence of that today. (Laughter.)

Mr. Ware takes exception to my glance when I referred to corporations hiring lawyers and agents to spread their propoganda. I am sorry Mr. Ware did not take in good part my apology for those who do that sort of thing. I did



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it in good faith, because I feel for the man that has to earn his living that way. I have only blamed those who wrongfully employ men and induce them to take improper employment against the public interest. That is what I am complaining of. I don't object to his getting compensation, if he does. Mr. Cullinan, they tell me, has thirty thousand golden reasons—he has not indicated them here, and has not told you just what they are.

But this question now, since Mr. Ware is so particular in disputing the question of the figures that I presented, which the authority from Redding has substantiated—his statement to you that he does not believe this and he does not believe that, and why don't we produce figures—are aside from the mark. Why, his corporations have millions to put behind him to give him all the figures, if they had one to dispute our facts here presented. Why don't

they present the facts to refute the statements that have been made? Where are your facts, gentlemen? They haven't got them, because this subject is not debatable before an honest body of people.

Now, take Mr. Ware and his criticism of figures, and where are they? His statement is that the Province of Ontario had to pay seven per cent, and he told you of a bond house circular that he had received. Why, I have a document here that is issued by the Bank of Italy, the president of which is the president of or associated with Mr. Cullinan in this so-called organization, the purpose of which document is announced on its very letter-head, that it is in opposition to this act. And what does he say? Let me read from it—it is a copy here, absolutely correct. The rate is 5.55 here and not seven, as stated.

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Mr. Ware: A year and a half ago or two years ago, or at the present time?

Mr. Spreckels: When did you refer to?

Mr. Ware: I referred to a year and a half and two years ago, and the rate of the bonds as sold in this city, and they were sold to yield 7.20.

Mr. Spreckels: This statement is under date of September, 1921.

Mr. Ware: I quoted those figures also as of the present time, and I stated that they sold now from 5.20 to 5.50—at the present time.

Mr. Spreckels: And that indicates to you and is proof positive, ladies and gentlemen, that the development of hydro-electric power by a state improves your credit, because it has gone from seven per cent to 5.55 per cent as Mr. Ware here says. (Applause.) Take their own figures, take their own arguments, and they are all of a kind—you scratch one of them, and you will find the same thing.

Now, I haven't very much more to say to you. The power companies are putting forth their efforts, and I want you to notice in the daily press from now forward the expenditures of your money, you, the rate payers of these corporations. Furthermore, I ask you, if you have any concern with the welfare of your state, that you sign up now and go before this regulatory body, this Railroad Commission, and that you ask for an accounting of every dollar they spent to debauch the press and poison the channels of publicity in your state. (Applause.) The people of a democracy are entitled to information that is accurate and honest, and not influenced by dirty money, by dirty dollars, by the corruptionists that hire their lawyers, that buy their advertising space. You are entitled to it, and you can get it if you will only arouse yourselves and go before your Railroad Commission, the body that is supposed to represent

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you, and demand your rights. That is what, in conclusion, I ask you to do. (Applause.)

President Bartlett: The discussion of the California Water and Power Act is now closed. A year ago at Santa Monica this convention went on record in favor of California's Water and Power Act. That decision still stands, unless this convention decides to take the contrary action. I will, therefore, entertain any motion, if anybody desires to make a motion, to rescind the action taken at Santa Monica. If that be your wish. Does anybody desire to make any such motion in connection with the subject?

Mr. Wheeler: I move that we take a recess until seven o'clock, Mr. President.

President Bartlett: Just a moment. I want this convention to understand the condition as it exists. We voted a year ago in convention at Santa Monica in favor of California's proposed Water and Power amendment. That stands to this moment as the action of this body, and will so stand unless this body desires to change it.

A Delegate: I move that we reaffirm the action taken at Santa Monica.

Another Delegate: I second the motion.

President Bartlett: A motion is made that we reaffirm the action taken a year ago at Santa Monica on this subject. The secretary will call the roll. The League must vote by cities, under our constitution. Each city is entitled to one vote, and duly accredited delegates from each city should cast the vote of the city by a majority vote of the delegation. Please keep your seats until the vote is counted.

On a roll call, the vote stood as follows: Aye, Alameda, Anaheim, Berkeley, Corning, Compton, Dinuba, East San Diego, El Cerrito, El Segundo, Exeter, Fillmore, Fullerton, Glendale, King City, Long Beach, Los Angeles, Marysville, Mayfield, Mountain View, Oakland, Orland, Palo Alto, Patterson, Redlands, Redondo Beach, Richmond, Sacramento, San Diego, San Fernando, San Gabriel, San Jose, San Leandro, San Mateo, Santa Barbara, Santa Cruz, Santa Rosa, Soledad, Sonora, Stockton, Sunnyvale, Susanville, Taft, Tehachapi, Turlock, Vacaville, Vallejo, Whittier—48; No, San Francisco, 1.

President Bartlett: The vote stands forty-eight in favor of re-affirming the position taken a year ago and one against. The position of the League is re-affirmed.

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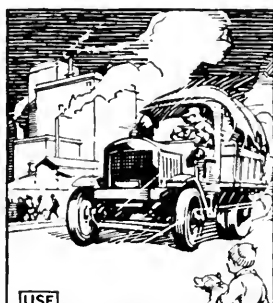
Municipal Charters in the Making

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NOVEMBER 1922

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Arrasmith, C.	Fillmore	Brown, Miss B. C.	Larkspur
Atkinson, F. W.	Watsonville	Browning, Dr. F. W.	Hayward
		Brooks, F. M.	Pasadena
Balzari, C. W.	Santa Cruz	Brown, Herbert	Glendale
Bambauer, L. F.	Pacific Grove	Bruschi, V.	San Diego
Barker, J. R.	San Francisco	Bryan, M.	Los Angeles
Bartlett, Lewis	Berkeley	Bryson, W. C.	El Segundo
Beck, Alexander	Long Beach	Buben, Zdenka	Alameda
Bell, Elmer F.	Berkeley	Buchan, M. A.	Palo Alto
Benson, F. S.	Berkeley	Buel, J. H.	Oakland
Berkeley, S. L.	Santa Monica	Bury, Joseph	San Francisco
Bertsche, G. G.	Palo Alto	Bushong, Dr. J. P.	Los Angeles
Biehl, Chas. L.	Daly City	Bushong, Mrs. J. P.	Los Angeles
Black, L. P.	Monrovia	Buttenheim, Harold S.	New York City
Black, R. V.	Hightown, N. J.	Byxbee, J. F. Jr.	Palo Alto
Blakeley, J. F.	Lodi	Baehman, Chas.	San Francisco
Blois, J. B.	Palo Alto		
Bonner, J. Allison	San Leandro	Caldwell, H. C.	San Fernando
Borden, J.	Palo Alto	Callaghan, P. A.	Watsonville
Borden, Mrs. J.	Palo Alto	Carpenter, Dr. T.	Alameda
Bordwell, R. B.	Upland, Cal.	Chapman, H. D.	Richmond
Bowden, Archer	San Jose	Chapman, Mrs. H.D.	Richmond
Bradley, F.	Visalia	Chase, C. W.	Gridley
Brainnard, C. F.	Redding	Cheney, Chas. H.	Long Beach
Braslin, C. A.	San Francisco	Clarke, W. D.	Bakersfield
Breck, James	Reno	Coleberd, S. W.	So. San Francisco
Brewster, J. H.	Colton	Cole, Mrs. H. S.	San Jose
Britton, E. F.	Bakersfield	Cooley, C. P.	Palo Alto

Cope, J. Hal, M. D.	Pleasanton	French, A. T.	E. San Diego
Corey, Francis E.	Alhambra	Fiddes, Alice W.	Pacific Grove
Costa, J. E.	Pittsburg		
Cutler, J.	Palo Alto	Gailmard, C. R., M. D.	Los Angeles
Cross, H. K.	Oakland	Gilkey, Howard	Oakland
Crummey, R. H.	Oakland	Gilkey, Mrs. H.	Oakland
Cunéo, P. J., M. D.	Bakersfield	Gilman, J. A.	San Francisco
Cuthbertson, S. M.		Ginder, Dr. W. E.	Calexico
Czerny, John	Merced	Ginder, Mrs. W. E.	Calexico
		Glassbrook, E. F.	San Francisco
Dake, Geo. D.	San Gabriel	Goodwin, C. B.	San Jose
Davis, R. F.	El Segundo	Gordon, J. B.	San Mateo
Davis, S. A.		Graham, I. H.	Taft
Deal, W. O.	Sacramento	Graves, Frank B.	Hanford
Dean, Jas. B.	Oakland	Graybill, Wm. N.	Turlock
DeVilbiss, A. M.	Santa Barbara	Griffith, C. A.	Bakersfield
Dickie, Dr. W. M.	Sacramento	Grove, E. V.	Berkeley
Dodge, D. H.	Watsonville	Gunther, O. E.	Orange
Dooggett, Vida M.			
Dorton, R. M.	Pittsburg	Hales, Carrie J.	Alameda
Douglass, W. A.	San Francisco	Hall, G. J., M. D.	Sacramento
Drover, P. J.	Marysville	Hall, H. C.	Turlock
Duck, Edwin	San Leandro	Hamilton, Burnett	Alameda
		Haynes, Dr. John R.	Los Angeles
Easton, W. D.	E. San Diego	Hann, Emma	Berkeley
Eckardt, A. O.	Downieville	Harper, Wm.	Coronado
Edgcombe, A. E.	Vallejo	Heilbron, F. G.	San Diego
Edmonds, W. F.	Lemoore	Held, John A.	San Diego
Eecke, D. P.	Stockton	Harper, James	Pacific Grove
Ellefson, Mrs. L. J.	Alameda	Hewes, Chas. E.	Long Beach
Emery, G. H.	San Francisco	Hickok, Clifton E.	Alameda
Engelbrechtsen, C.	Berkeley	Hildreth, Geo.	Vallejo
Engram, Leslie	Redding	Hinckley, Geo.	Redlands
Eschallbach, A. J.	So. San Francisco	Hinckley, Mrs.	Redlands
Evans, J. P.	Pacific Grove	Hogan, W. B.	Stockton
Evans, S. A.	Santa Cruz	Hobart, A. C.	Palo Alto
		Holston, Geo. W.	So. San Francisco
Faelschow, Dr. G. W.	San Diego	Hood, J. H.	Oakland
Faris, A. C.	Richmond	Horabin, W. O.	Palo Alto
Farmer, R. C.	Alhambra	Horel, Dr. F. R.	Arcata
Ferguson, A. P.	Turlock	Horner, A. C.	Stockton
Ford, E. P.	E. San Diego	Huddleston, C. F.	Pasadena
Ford, J. O.	Richmond	Hurst, F. J.	Larkspur
Forrest, Wm. J.	Oakland	Hyatt, G. F.	Coronado
Foster, Dr. H. E.	Oakland		
Franklin, Blake	Los Gatos	Isensee, Edwin	Ventura
Freitas, G. H.	Modesto	Iglick, Dr. S.	Orland
		Iglick, Mrs.	Orland

Jackley, J. G.	Sacramento	Mason, Mrs. H. A.	San Francisco
Jeffries, E. H.	Manteca	Mason, H. A.	Secy. of League
Jeffries, Mrs. Fannie E.	Manteca	Mauzy, P. B.	Pacific Grove
Jencks, W. L.	Los Angeles	May, S. C.	U. of C., Berkeley
Jencks, Mrs. W. L.	Los Angeles	Meals, G. W.	Lompoc
Jochmus, A. C.	Pacific Grove	Mehl, P. E. C.	Upland
Johnson, W. E.	Orland	Meidroth, A. J.	Corte Madera
Jones, G. P.	Sacramento	Mendenhall, D. A.	Palo Alto
Jordan, C. E.	Palo Alto	Merritt, F. C.	Oakland
		Meyers, Emmett	Exeter
Kahn, Jas. B.	Alameda	Miller, Rachael M.	Palo Alto
Kasson, Frank	Palo Alto	Mills, L. L.	Santa Rosa
Kelly, Dr. F. L.	San Francisco	Mills, Mrs. L. L.	Santa Rosa
Kelly, Earl Lee	Redding	Montell, Geo. A.	Palo Alto
Kitchen, H. B.	Watsonville	Morris, Alice M.	El Cerrito
King, Lou F.	San Jose	Morris, S. B.	Pasadena
Kinsman, John A.	Patterson	Morrison, Geo. D.	Santa Barbara
Kirkbride, C. N.	San Mateo	Morton, J. A.	Santa Monica
Koch, Henrietta	Woodland	Mott, E. J.	Reporter for Con- vention.
		Mulvihill, Jos.	San Francisco
Lakin, E. D.	Palo Alto	Murphy, Chas. B.	Glendale
Launer, Mr.	Brea	Murphy, Mrs. Chas. B.	Glendale
Lawhead, H. D.	Woodland		
Lester, Mrs. B.	Berkeley	Neel, Harry Jr.	Santa Maria
Lawrence, Chester M.	Fresno	Neuner, C. M.	
Lenert, Louva G.	Sacramento	Newkirk	Berkeley
Lenke, Dr. W. D.	San Bernardino	Newman, R. R.	Los Angeles
Leseman, Dr. A. M.	San Diego	Newton, Dr. J. L.	Woodland
Leseman, Mrs. A. M.	San Diego	Northrop, L. E.	San Francisco
Leventon, R. E.	Manteca	Nya, Allen H.	San Francisco
Leventon, Mrs. R. E.	Manteca		
Lewis, V. T.	Sonora	Ogborn, Marie L.	Richmond
Lewis, Mrs. V. T.	Sonora	Olsen, Louis	Palo Alto
Libby, G. W.	Sebastopol	Orbison, R. V.	So. Pasadena
Lichardt, E.	U. of C., Berkeley	Osborne, H. Z.	Los Angeles
Locke, W. J.	Ex. Sec. of League		
Lucas, Dr. W. T.	Santa Monica	Paulglass, H.	Redonda Beach
Lyon, F. H.	Fullerton	Polk, M. C.	Chico
		Pomeroy, J. L.	Los Angeles
McCurdy, J. L.	E. San Diego	Popp, W. L.	San Jose
McConnell, F. W.	Healdsburg	Peterson, R. H.	Watsonville
McCurdy, J. E.	Daly City	Porter, Dr. H.	Riverside
McGovern, J. C.	So. San Francisco	Porter Mrs. H.	Riverside
McLean, Mrs.	Palo Alto	Powers, Dr. L. M.	Los Angeles
McVittie, J. A.	Richmond	Prather, Hale	San Francisco
Malcolm, Norman E.	Palo Alto	Pratt, Frank H.	Oakland

Price, W. A.	Redwood	St. George, Mrs. E.	Fresno
Prince, J. R.	Los Angeles	Stikeman, F. H.	Santa Cruz
		Stillings, W.	Sebastopol
Ramer, M. C.	Corning	Stocks, G.	Anaheim
Randall, E. L.	Corning	Stranahan, Wm.	Los Angeles
Rankin, Dr. A. H.	Daly City	Swisher, M. M.	Watsonville
Rautsma, W.	Fresno		
Reed, T. B.	Covina	Taber, G. R.	Sebastopol
Reeder, C. F.	Fillmore	Taylor, C. E.	Los Angeles
Reeves, W. H.	Glendale	Taylor, H. A.	Coronada
Richards, G. W.	Marysville	Tantau, G. B.	Exeter
Rhodes, F. A.	San Diego	Templeton, M. B.	Hayward
Riley, H. P.	San Francisco	Telfer, Gavin J.	Los Angeles
Roberts, H. H.	San Francisco	Thayer, Dr. J. W.	Gilroy
Robinson, J. W.	Los Angeles	Thomas, Mrs. D. W.	Palo Alto
Roemer, Frank	Santa Maria	Tilley, M. J.	Susanville
Rogers, A. M.	Los Angeles	Timmons, J.	San Francisco
Rogers, H. S.	Petaluma	Torgersen, H. E.	San Francisco
Robinson, E. A.	Redding	Trubschenek	Sunnyvale
Rueger, C. E.	El Segundo		
Russell, W. J.	San Leandro	Uhl, C. J.	Vacaville
Sanderson, L. D.	Berkeley	Underwood, A. L.	Whittier
Sans, A. W.	Watsonville		
Sauer, A. Ray	San Diego	Varcoe, W. E.	Alameda
Saunders, J. S.	Sebastopol	Veatch, F. C.	Los Angeles
Schmidt, Eugene	San Francisco	Vierra, W. H.	Albany
Schafer, Olive C.	Hayward		
Scott, W. W.	Richmond	Wanzer, J. O.	Marysville
Shaljian, V. L.	Stockton	Wand, H. B.	Ventura
Simpson, Mrs. W.	San Jose	Wadlund, G. E.	Monterey
Smiley, A. M.	El Segundo	Waghop, H. C.	Long Beach
Smith, Mrs. H.	Stockton	Weber, A. A.	Santa Monica
Smith, C. A.	Marysville	Webster, J. C.	Sonora
Smith, F. H.	San Mateo	Webster, Mrs. B. H.	Sonora
Smith, H. H.	Bakersfield	Weisel, H. V.	Anaheim
Smith, Mrs. J.	Kern County	Wells, W. B.	Riverside
Smith, J.	Kern County	Weisenburger, H. C.	Watsonville
Snyder, Grace	Tehachapi	Wheeler, F. C.	Los Angeles
Snyder, Ferd.	Tehachapi	White, Sherman T.	Redding
Spunn, B. E.	Alameda	White, W. A.	Orange
Smalley, J. D.	Hayward	Whitnall, C. G.	Los Angeles
Stark, W.	Anaheim	Williams, H. G.	Oakland
Stapleton, L.	Los Angeles	Wing, C. C.	Oakland
Stevens, Miss I.	San Francisco	Winning, Miss D. M.	Los Gatos
Stewart, O. E.	Anaheim	Wisler, L. O.	Fresno
St. George, R.	Fresno	Wood, C. H.	Pasadena

Wretman, Miles E.	Sunnyvale	H. S. Crocker Co.,	
Wretman, Mrs. N. E.	Sunnyvale	Stationers	San Francisco
		Gladding, McBean Co.	San Francisco
Youens, A. V.	Palo Alto	Health Eng'ring Lab.	San Francisco
Young, H. A.	El Segundo	Hershey Mfg. Co.	
		Neptune Meter Co.	San Francisco
		Neuner Corporation	Los Angeles
Art Concrete Works	Pasadena		
C. L. Best Tractor Co.	San Jose	Pac. Clay Prod. Co.	Los Angeles
California Corrugated			
Culvert Co.		Standard Oil Co.	San Francisco
California Glazed Ce-		Weed, C. H.	San Jose
ment Pipe Co.	Los Angeles	Warren Bros. Co.	Oakland
California Potteries	San Francisco		
W. Clark & Sons	San Francisco	Tropic Patteried Inc.	Glendale

Bachman, Chas.		with Neptune Meter	Exhibit
Barker, J. R.		" Neptune Meter	"
Braslan, C. A.		" Neptune Meter	"
Burdge, J. S.	L. A.	" Warren Bros. Paving	"
Brooke, F. M.	Pasadena	" Art Concrete	"
Clyde, H. B.	S. F.	" Crocker	"
Curran, W. B.		" A. Carlisle & Co.	"
Eastman, F. E.	Sacramento	" Standard Oil	"
Gilman, J. A.	Oakland	" Warren Bros.	"
Glass, Fred	S. F.	" Heath Eng. Lab.	
Heath, Harry	S. F.	" Heath Eng. Lab.	
Hood, H. J.	Oakland	" Art Concrete	"
Kitt, C. P.	L. A.	" Crocker	"
Martin, D. B.	L. A.	" Crocker	
Merrill, C. H.	Fresno	" Warren Bros. Paving	"
Murphy, C. B.	Glendale	" Tropic Potteries	
Neuner Corporation	L. A.		
Newton, F. L.	Woodland		
Nye, A. H.		" Neptune Meter	"
Prothero, L. C.	S. F.	" Heath Eng. Lab.	"
Roberts, H. H.	S. F.	" Standard Oil	"
Northrop, L. E.		" Neptune Meter	"



RESOLUTIONS ADOPTED AT THE RECENT CONVENTION AT PALO ALTO

September 22nd, 1922.

FIRE INSURANCE RATE IN CALIFORNIA

Whereas, it has been alleged that the rates on property insurance in California are excessive and that the laws of this state are inadequate to prevent such excessive charges or to prohibit practices inimical to the public interest in matters affecting insurance,

Be It Resolved, that the Executive Committee of the League of California Municipalities be requested to investigate the laws and practices governing the business of property insurance in California, with particular reference to the effect of same on the rates for such insurance in this state as compared with the rates in other states; and that the report of the committee's findings and recommendations based thereon be bulletined to members of the League California Municipalities prior to the convening of the next session of the Legislature of the State of California.

STATE COMPENSATION FUND

Resolved, that the Executive Committee be directed to make an investigation into the matter of compensation insurance carried by municipalities under state law and to report the facts ascertained at the next convention.

ASSESSMENT OF PROPERTY AT 100% OF ITS VALUE

Be it resolved by the League of California Municipalities that it lend its efforts to terminating the prevailing practice by cities and counties throughout the State of assessing for tax purposes at other than 100% of value as provided by law, and be it further

Resolved, that the State Legislature be importuned to take such steps as may be necessary to terminate the present un-economic, insufficient and complicating method as assessing at varying fractions of true values.

FAVORING SENATE CONSTITUTIONAL AMENDMENT No. 29

Be it hereby resolved by the League of California Municipalities in convention assembled that it endorse and urge upon its membership to approve and work for the passage by popular vote at the next general election of Senate Constitutional Amendment No. 29 introduced by Senator Carr at last session of Legislature which amendment provides for the acquisition, construction, ownership, operation or control of any public works for supplying utility service or any municipal affair determined by the contracting cities to be of common concern, and providing for the adoption of such contract by vote of the people in their respective cities and the approval by the State Legislature as is done in case of city charters after which such contract shall be a part of the organic law of such communities.

MEMORIALIZING THE LEGISLATURE OF CALIFORNIA TO AUTHORIZE THE STATE HIGHWAY COMMISSION TO ACQUIRE LANDS ALONG HIGHWAYS

Whereas, the highways of California are fast being denuded of their wonderful virgin forests, and scenic spots and camp sites are being rapidly destroyed or made unavailable for the use and enjoyment of the public and unattractive to the thousands of tourists and visitors who in ever greater numbers are now coming to use our highways; and

Whereas, our neighboring state of Oregon, by an act of Legislature, passed in 1921, is taking steps to preserve trees, stream beds, mountains, view-points and other attractive scenic features along its highways with the avowed purpose of making that state more attractive to tourists and to its own citizens;

Now therefore, be it resolved, that this League of California Municipalities in annual convention assembled, does hereby most earnestly and respectfully request the State Legislature of the State of California to adopt an Act providing that the State Highway Commission of the State of California may acquire for and in the name of the people of the state, by purchase, lease, donation, or by proceedings in eminent domain, rights of way, land, parks, trees, grounds or water areas necessary for the culture and support thereof, camp sites on or along the course of any state highway or any public highway.

The Oregon Act referred to is Chapter 343 of the Laws of Oregon, entitled:

"An act entitled 'An act to empower the State Highway Commission to acquire rights of way along state highways for the maintenance and preservation of scenic beauties along such highways.' "

COMPULSORY FILING OF SUBDIVISION MAPS

Whereas, the City Planning Commissions and City Councils of the state have found serious difficulty in carrying out the intent of the state laws in regard to city planning for lack of proper authority and legal means of handling certain problems, particularly those just outside the city limits;

Now therefore, be it resolved, that this League of California Municipalities, assembled in annual convention, hereby respectfully request the California State Legislature to pass acts of the legislature which will cure these matters as follows:

1. To amend the state act covering the filing of subdivision maps so that the present intent of the law cannot be evaded by the sale of lots by meets and bounds.

SPECIFIC PROCEDURE FOR SET BACK LINES

2. To amend the state laws providing for the establishment of building set back lines so as to have the law operate definitely under the police power and to remove the present requirements which are sometimes confused with eminent domain proceedings.

ESTABLISHING COUNTY PLANNING BOARDS

3. To authorize County Boards of Supervisors to establish County Planning Boards with powers and duties similar to those provided for City Planning Boards.

ESTABLISHMENT OF SANITARY AND HIGHWAY DISTRICTS

4. To pass an act authorizing the establishing of sanitary and highway districts including the whole or part of any incorporated or unincorporated territory in the county and provide the means and methods of administering the same.

PUBLICATIONS OF AMOUNTS CONTRIBUTED BY PUBLIC UTILITY
CORPORATIONS TO DEFEAT THE WATER AND POWER ACT

"Resolved, that the State Railroad Commission be requested to ascertain and publish, before October 15, 1922, the amounts contributed directly or indirectly, by the Public Utility corporations of California to bring about the defeat of the California Water and Power Amendment to the Constitution.

THANKS TO THE STANFORD UNIVERSITY AND THE CITY OF PALO ALTO

"Resolved, that the thanks of the convention, and the delegates thereto be extended by the Secretary to Stanford University and to the City of Palo Alto, for the great courtesies extended to the League and the convention and the delegates thereof during the meeting just closing.

THANKS TO THE PRESS

"Resolved, that the convention express to the press of California its thanks for courtesies extended to it in the publication of reports concerning convention proceedings.

THANKS TO THE LEGISLATIVE COUNSEL BUREAU AND TO
GEORGE B. BUSH, ITS CHIEF

"Whereas, the individual members of the League of California Municipalities, and their official representatives, are vitally interested in the proposal and enactment of needed laws and the modification and amendment of certain existing laws, and

Whereas, the Legislative Counsel Bureau of the State of California provides the means and facilities for the scientific study of legislative needs and the drafting and amendment of existing and proposed statutes, and

Whereas, members of this organization have in past years received most courteous consideration and very valuable assistance and counsel from the Bureau.

Now therefore, be it resolved, that this convention should, and it hereby does, express its appreciation of the valuable assistance heretofore rendered to the members of this organization, and

Be it further resolved, that all members of the League of California Municipalities interested in legislation should submit the bills which they are interested in to the Legislative Counsel Bureau as soon as possible, to the end that there may be better enactments of law and a greater uniformity and co-ordination in proposed legislation, and

Be it further resolved, that a copy of this resolution be sent to the Honorable George B. Bush, the chief of the Legislative Counsel Bureau of the State of California."

THANKS TO THE RETIRING PRESIDENT, MAYOR LOUIS BARTLETT,
OF BERKELEY

Resolved, that this convention extend to Honorable Louis Bartlett, Mayor of Berkeley, its thanks and grateful appreciation for his very earnest efforts and able services to the League during the year just closed of his incumbency in the office of President of the League.

Palo Alto's Street Work Procedure

(Address by T. F. BYXBEE, City Engineer of Palo Alto)

Mr. Chairman and Members of the League:

The city of Palo Alto has from the very beginning been a strong believer in municipal control of public enterprises. Right after its incorporation we voted bonds and constructed the water works, believing that we could sell water cheaper than a private company, and that we could also save money. And so it has proved. Our water works is to-day and always has been a paying investment. Next, the power plant was installed because we thought we could beat the rates of the private companies, and also create a source of revenue for the city. Some years later we discovered that the owners of the gas plant were making a surplus of some \$20,000 per year on the rates that were charged for gas, so we decided to take over this utility and are now receiving a good revenue from it, and are also giving the public excellent service at low rates.

Encouraged by success in the municipal control of these enterprises, and thoroughly disgusted with the excessive prices charged by private contractors and with the troubles and annoyances they have caused us, the city decided to try its hand at the paving game. After one year's experience doing our own paving, we feel very well satisfied with the result and believe that paving by the municipality is a great success.

Before going into the details of the paving operations, it seems desirable to give a brief sketch of the procedure which finally lead to the installation of the plant.

In May, 1916, the city received bids on 1,300,000 square feet of 5-inch concrete pavement. The lowest regular bidder proposed to do the work at the

very favorable figure of 10.65 cents per square foot for grading and paving, and an award of contract was made to this bidder. It appears, however, that there was an irregular bid received which was slightly lower, and the contractor who submitted the proposal objected strenuously to the decision of the council in awarding the contract to the lowest regular bidder. The matter was taken into the courts and fought out on various points for over a year and a half. The courts sustained the city in all points, but by the time the decision was rendered, the conflict in Europe was on, and prices for labor and material had risen to such a point that it was impossible for the contractor to proceed, so the work was abandoned.

In 1918, bids were again received on this work, but were rejected as being too high. That was when prices were at the peak. If award had been made at this time, the work would have cost the property owners some \$125,000 more than it would have under the 1916 bid. This was a sore point with the city officials, and they were thoroughly disgusted with the methods employed by contractors to interfere with each other's bids.

The last bidding was in March, 1921, when the city advertised to lay 875,549 square feet of asphaltic and hydraulic cement concrete pavements. The bids received for this work were carefully reviewed by the Board of Public Works, and the city council, but were finally rejected as too high, and the city engineer was ordered to report on the installation of a paving plant, and to suggest a method by which the work might be financed and carried on.

Hydraulic cement concrete was

adopted as the type of pavement to be laid, because it was believed to be somewhat superior to the asphaltic type, and also less costly to maintain. Moreover, the asphalt paving plant is a more costly plant to construct than a concrete mixing plant, which fact further favored the selection of the concrete type of pavement.

The plan adopted for carrying on the work was by private contract between the Board of Public Works and the property owners. The front foot method of assessment was used, and payment for the work was to be made in advance of the actual paving. A city of the size of Palo Alto is unable to finance street pavement work on a large scale, so the payment-in-advance plan seemed to be the only practical solution of the problem. The district plan of assessment cannot be used successfully under this system of financing, but probably will be adopted later in certain instances when the cash reserve of the city is larger than at present and can be drawn on temporarily until payments come in.

The type of paving plant adopted was what is known as the central mixing plant, consisting primarily of a rock and sand bunker, a material measuring hopper, and a stationary concrete mixer. Combined with this was an electrically driven derrick, and clam-shell bucket for unloading material from cars directly into the bunker compartments, and a cement platform and shed conveniently placed so that the labor of handling cement from the freight cars to the mixer was reduced to a minimum. This plant meets all our expectations for convenience, accurate proportion of ingredients, and economy of operation, and for our work is far superior to the central proportioning plant, or any of the other plant lay-outs usually used for concrete pavement construction. Electrical drive relieves us of power troubles.

Also, the plant is at all times instantly available for turning out concrete for other municipal purposes, and is used quite extensively in this way.

We use Prof. D. A. Abrams' table for 3,000 lbs. concrete in proportioning the mixture, and follow closely his recommendations regarding the water content. Each batch turned out by the mixer contains 18 cubic feet of placed concrete, and consists of four sacks of cement, .34 cubic yards of sand, .54 cubic yards of rock, and approximately 17 gallons of water. The sand used is known as the $\frac{1}{4}$ -inch size, and the rock varies from 1 inch to $2\frac{1}{2}$ inches. Concrete is mixed for at least one and one-half minutes.

The concrete is dumped directly into one-ton Ford trucks, equipped with gravity dump bodies of capacity to take the full 18 cubic foot batch from the mixer. These trucks are operating very satisfactory. They are reliable and speedy and deliver the concrete from the plant to the road for approximately 23 cents per ton, which is a very low haulage cost. The distance from the plant to the work during the past year has averaged over a mile.

The concrete is laid in two strips, in order to effect better control in finishing. By this method, a strike board extending from the center of the road to the curb may be used where such a means of tamping would be impractical, if an attempt were made to finish the street surface for the whole width in one operation. We have tried both methods, and find that it is possible to get a smoother and better concrete surface by laying the pavement in two strips.

The thickness of the pavements for the residential streets now varies from $4\frac{3}{4}$ inches to 5 inches. The concrete as delivered by the truck is first spread by hand, then tamped with a heavy strike board shaped to give the surface

the required crown. After this operation, the surface is rolled with a light hand roller, then finished with a longitudinal float. The hand rolling is very beneficial, in that it eliminates hair cracks by removing the surplus surface moisture. The longitudinal float was adopted because it was found to make a smoother riding surface than any other finishing tool. This float consists of a flat board eight inches wide by twelve feet long, provided with handles at each end at convenient height for two men to operate from bridges spanning the pavement. The float is moved backward and forward in from 6-inch to 12-inch strokes in a longitudinal direction, and at the same time is shifted slightly transversely so that the whole surface from center to curb is floated. The operation irons out the irregularities left by the strike board and roller, and leaves the surface true and smooth.

No expansion joints are provided. The natural cracks which form are poured with E grade asphalt or Roadamite. The main objection to this treatment is that it disfigures the appearance of the pavement, due to the irregular black lines following the cracks. A cement colored filler would eliminate this unsightliness, and it is hoped that something of this nature may be developed. I understand the Portland Cement Association is working on such a filler.

The pavements are cured by the pounding method for ten days, then allowed to dry out slowly for ten days more before traffic is allowed on them. Water for sprinkling and curing is furnished from hydrants, through 1¼-inch pipes temporarily laid along the line of the work.

The revenue and expenditure account for the first year's operation is as follows:

Revenue:

Paving cost.....	\$117,775.83
Material sold city departments ..	1,731.72
Sale of dirt, cement, etc.....	786.88
Sundry paving.....	1,385.33
Miscellaneous receipts.....	2,046.24

Total receipts from the operation of the paving plant.....\$123,726.00

Costs of Operation:

Grading.....	\$ 15,364.03
Curbing.....	4,451.04
Preparing mixture, includes labor, power, sand, broken rock cement, etc.....	80,352.94
Labor and supplies for spreading, finishing and curing.....	8,991.07
Oil coatings.....	1,662.19
Office and accounting expense....	3,809.10
Printing, supplies, rents and testing materials.....	1,773.92
Fixed charges to take care of the interest and depreciation on the plant.....	4,300.00

Total cost.....\$120,704.29

Net profit.....\$ 3,021.71

Under private contract as per bids received for this work on March 14, 1921 the cost for the paving done by the city during the year would have been \$184,521.89 as follows:

Curbing, 6,229.63 ft. at 75 cents a foot.\$	4,672.22
Gutters, 11970 sq. ft. at 32 cents a sq. ft.	3,830.40
Asphalt pavement, 153000 sq. ft. at 22 cents.....	33,660.22
Concrete pavement, 434865 sq. ft. at 27 cents.....	117,413.55
Grading, 12927 cub. yds. at \$1.25.....	16,158.75
Total.....	\$175,735.14
Incidental expenses.	8,786.75

Total cost.....\$184,521.89

The actual cost to the property owners for the work done by the municipal paving plant, as per assessments, was as follows:

6229.63 ft. of curb- ing at 65 cents...\$	4,049.26
Paving, 599,836 sq. ft. at 18.2 cents ...	109,170.15
(Includes grading, paving incidentals)	

Total cost to the property owners.. 113,219.41

Saving to property owners.....\$ 71,302.48

For the Municipal Paving Plant to make such a large saving over contract

work in its first year's run, and at the same time to operate without loss is quite remarkable and extremely gratifying to those interested in this project.

Following is a summary of the cost for labor and materials:

Cement, \$3.21 to \$3.56 per barrel, f. o. b. Palo Alto, less 5 cents per lb. for cash. Credit for empty sacks, 10 cents to 15 cents each.

Crushed gravel (from Niles), \$1.50 to \$1.60 per ton, f. o. b. Palo Alto. Sand, the same. Sand and gravel weigh approximately 2,800 lbs. per cubic yard.

Common labor, \$4 a day; cement workers, \$4.50 to \$6.00 per day; form setters, \$4.50 to \$5.50 per day; one-ton Ford truck drivers, \$4.50 to \$5.00 per day; team and man, \$7.50 a day; foremen from \$150 to \$180 per month.

The system adopted for financing the work is, first, to prepare the assessment roll based on the estimated unit costs. These costs thus far have been 18.2 per square foot for grading and paving, and 65 cents per lineal foot for curbing. After the assessment roll is prepared, a letter is sent to each property owner along the frontage describing the work and giving the cost as follows:

M. _____

Under authorization of the city council by Ordinance No. _____, the Board of Public Works does hereby declare its intention to pave _____, from the _____ line of _____ to the _____ line of _____ in accordance with plans and specifications now on file in the office of the city clerk of the city of Palo Alto. This work will be done by said Board of Public Works acting for you and in your behalf.

The assessment roll which has been prepared and is now on file at the City Hall shows that your property, being

Lot _____
Block _____
Diagram _____

is assessed a total of \$ _____ for this improvement as follows:

Curbing _____ \$ _____
Grading and paving _____ \$ _____
Street or alley intersection assessment _____ \$ _____

In order that the Board of Public Works may do this work for you, it is necessary for you to authorize said work to be done either in person or by letter, and deposit the cost thereof with the city auditor on or before _____.

It is important that you give this matter your immediate attention in order that the work may be started promptly and completed in its entirety, so that recourse to the Street Improvement Act may be avoided, and expense saved.

Very truly yours,

Agreement No. _____

City Clerk.

At the time payment is made the property owner signs the following contract with the Board of Public Works:

No. _____

Agreement of Property Owners for the Improvement of _____ from the _____ line of _____ to the _____ line of _____

City of Palo Alto, California.

We, the undersigned owners of real property to be benefited by the street improvement of " _____ in the city of Palo Alto between _____" hereby consent to and request the Board of Public Works of said city to do and perform for us at our expense the following street work, to-wit:

"That ' _____ between the points above named _____' be graded to the official line and grade and concrete curbs be constructed on each side of the roadway of said street, and around the

corners of street intersections where not already laid; that cement walks be constructed at street intersections where shown on the plans; that a 4³/₄-inch hydraulic concrete pavement be constructed on the roadway of said street, between the points named where not otherwise paved or macadamized.

"For the purpose of paying the cost of the above-described street improvement, the undersigned property owner has subscribed the sum set opposite his name and authorizes the Board of Public Works to use and expend said sum to pay the cost of said work.

"The assessment for said work and the diagram showing the property benefitted and liable for the payment of the cost of said work, is approved and adopted by the undersigned property owners. The assessment number in red ink on the diagram and also set opposite to each name hereto shows each owners' property to be benefitted. Said work shall be done in accordance with the plans and specifications prepared by the city engineer for the said work and approved by the Board of Public Works at its meeting held on Sept. 6, 1921, 'said sums subscribed shall be a trust fund for the improvement of'—the street named—and to be used for said purpose only.

"In Witness Whereof, we have hereunto set our hands as of the date of the filing hereof, with the city clerk of the city of Palo Alto, and this agreement is in full force and effect after the acceptance thereof by the Board of Public Works."

The property owners have so far been enthusiastic, I may say, about this work, and we have had very little trouble in collecting the assessments. A good many of them come in and pay the costs before the time stipulated. But once in a while we find a straggler, whom we have to coax a little, and this is done by sending the party the following letter:

"On or about....., you were notified that the Board of Public Works of the city of Palo Alto, at the request of property owners, would improve..... The cost of your work is \$..... We have not yet heard from you. We desire to give you one more opportunity to respond to the call before omitting your property from the work and ordering it done under the street laws of the state.

"The cost of the street work, if ordered done under the street laws, will probably be a sum much in excess of the present sum, for the incidental expenses will fall largely upon your property.

"Nearly all of the other property owners have responded. If you desire this work to be done under contract with the Board of Public Works send in your money before....."

This letter generally brings results. So far we have had only one property owner who failed to pay so were compelled to force the work in along his frontage under the Vrooman Act. It cost that property owner a good deal more than if he had had the work done by the Board of Public Works.

Chairman Hinckley: This matter of street work, as explained by Mr. Byxbee, being a little irregular, perhaps someone would like to ask Mr. Byxbee some questions regarding it. There are a few minutes that can be devoted to that purpose, if so.

Question: I noticed you mentioned a profit of \$3,000 to your credit from your operations. Is that in any way refunded to the property owners, or is that carried along as profit to defray the expense of your city plant, and perhaps get other city plants?

Mr. Byxbee: We have made no attempt to refund any money. We thought in the beginning that if the profits were sufficient we would make a

refund, but so far the surplus has been too small to re-distribute.

Mr. Chapman: Do I understand that you always require payment in cash in advance?

Mr. Byxbee: Yes. We refuse to do the work unless the cash is paid in advance. There was one case where an owner having property on another street refused to pay a \$40 assessment for the improvement of a street intersection which it was thought advisable to pave as all the other assessments had been collected.

In this case we waited until the property was improved, and then told the owner that unless he paid the assessment we would refuse to give him water or light. That brought him to terms immediately and the assessment was paid.

Mr. Chapman: How do you take care of street intersections?

Mr. Byxbee: We assess them under the old Vrooman method of assessment, half way to the next main street in each direction.

Mr. Chapman: Does that include sidewalks, too?

Mr. Byxbee: We haven't undertaken any sidewalk work, except corners at intersections where not already in place. These are included as part of the intersection cost and assessed as just mentioned.

Mr. Morton of Santa Monica: Have you had any trouble with your non-resident property owners?

Mr. Byxbee: No, not particularly. We make it a point to get the assessments out early and give the property owners notice at least two months in advance of the time the work is to be started. We find the non-resident owners to be quite responsive where they are given plenty of time to investigate.

Mr. Morton: If you have a property owner refuse to sign up, and you have to

start out and do the work and leave his property out, do you have difficulty in securing bids for the small piece of work involved?

Mr. Byxbee: Yes. A paving contractor will not come into the town for a small job and we have no local paving contractors. In the case mentioned where the work was forced in, we invited a local sidewalk contractor to bid on that work. The bid he submitted, however, was very high so the owner of the property, who was connected with a contracting firm himself, elected to assume the contract and do the work.

Mr. Morton: Is there any time fixed, where work has partly been done, and under your declaration of intention, you say you make reference to that—is there any point where you terminate his right—the time beyond which he can do no work? The major part has been paved and you say, "Accepting the work which has already been done." You give your notice of intention to do the work. How late can that individual owner do that work, or is there a time at which he must stop and turn it over to the city?

Mr. Byxbee: I don't quite get your point.

Mr. Morton: The point is this: Suppose the greater portion of the street has already been paved, or the sidewalk has been laid, and you want to finish up that piece of work. You give notice of your intention. Now, then, how late can the owner come in and do that work, so that he would not be put to the expense of a proceeding under the street assessment law?

Mr. Byxbee: At any time up to the time we do the work.

Mr. Morton: Up to the time you let your contract?

Mr. Byxbee: We let no contract; the city does the work. Do you refer to proceedings under the street act to force the improvement?

Mr. Morton: Yes.

Mr. Byxbee: The council assumes jurisdiction of the street at the time of the passage of the resolution of intention.

The council will drop the proceedings at any time up to the time of advertising for bids if the property owner wishes to do the work and will reimburse the city for all incidental expenses incurred.

City of Alameda Replaces Pension Makeshift With Scientific System

By CLIFTON E. HICKOK, City Manager, Alameda.

The city of Alameda recently came to a realization that there was a deficit of \$186,695.00 in its pension fund, and that this deficit was increasing from year to year at an alarming rate. It was evident that unless steps were taken to remedy the situation, that the city would find its pension fund, before a great many years, in a most hazardous position financially.

Alameda, like practically all other American cities, established years ago a pension system for its fire and police departments, which instead of being created upon a scientific actuarial basis, was nothing more than a philanthropic makeshift actuated by a desire to protect the city employees, without much concern as to ultimate costs. The men were assessed 2% of their salaries, and the city of Alameda obligated itself to supply any deficiency which might occur from year to year, by contribution from the annual budget. It was not appreciated that the city was assuming an obligation which would inevitably lead to embarrassment. No provision was made whereby the city would be building up a reserve fund from year to year, which would be sufficiently large twenty-five or thirty years hence, to meet the excessive pension demands, as they matured. Not having done that, the burden for pensions would ultimately become almost overwhelming, and out of all proportion to the payroll.

The city of New York due to its laxity of methods in the early days of its pension system, is paying out at the present time for pensions an amount exceeding 20% of the payroll. In some European cities the government is paying as high as 40% of the payrolls to maintain pension payments. Most of the older schemes in Europe and in America are on the verge of bankruptcy. A great many of them have been abandoned without fulfilling their obligation to the men. This means not only that the cities are approaching a most deplorable financial condition as regards their pension systems, but that the rights of the men pensioned are being jeopardized. These men have been paying assessments for years, with the understanding that they are to receive the benefits of the pension system, and as a consequence, the cities should place their systems upon such a sound actuarial basis as to remove all hazard to the men themselves.

The first pension fund to be established for municipal employees in the United States was created for the police force of New York City in 1857. This was followed in 1871 by a pension fund for firemen and in 1894 by a pension fund for teachers. These early pension systems of New York were makeshifts. As a consequence, a commission of investigation in New York City found in 1913 that there was a total deficit at that time of \$154,000,000.

Many commissions have been appointed to investigate municipal pension systems throughout the United States. The consensus of their opinion is found in the expression of the New York committee which says: "The pension funds in municipalities are a delusion and a snare until they are placed on an actuarial basis." The Mayor of Troy, New York, stated that pension funds as now constituted are "the biggest jokes in municipal government." These pension systems instead of being created as the result of study by actuarial experts, were the production of amateurs influenced in many instances by pressure brought to bear by the beneficiaries of the proposed pension funds; neither the beneficiaries or the officials who drew up the pension systems, realizing that there was being created something that was unsound, ultimately impossible, and which would react eventually to the grief of the proposed beneficiaries.

The city of Alameda realizing that its pension fund was unsound, recently employed a consulting actuary, Mr. Wm. Leslie, of San Francisco, to make a scientific study of the situation and to prepare a report, advising what steps were necessary to place the pension system upon a sound basis. This report was most illuminating and more than confirmed the fears of the members of the City Council. It was discovered that in the police pension fund there was a deficit of \$90,171.00, and that in the fire pension fund there was a deficit of \$96,524.00. It is of course impossible for these large deficits to be made up by the city at once, or even within a short period of time. The only solution is to create an inviolate fund to which the city can make annual payments over a long period of years. This period was established as of thirty years duration. The fund will thereby be built up by annual payments so that it will

come to a full reserve basis at or near the end of thirty years from 1922. This method being adopted will require that the city lay aside each year for thirty years the sum of \$4,583.00 for the police pension fund, and the sum of \$3,765 for the fire pension fund. This money as it accumulates must be put out at interest at not less than 4%.

In addition to the above annual sums which must be laid aside for thirty years in order to make up the deficit already incurred for the present employees, it will be necessary to provide for the future liabilities of new members and present employees by laying aside an amount equal to 5% of their salaries. Two per cent of this will be paid by employees and 3% by the city.

This policy, of course, results in the present council being required to place in the tax rate a larger amount for pensions than is actually necessary to meet the present demands. The easier thing for the present council would have been to pass the burden on to posterity, and let the future councils which would be in office twenty-five or thirty years from now, meet the crisis when it arose. This would result in a terrific tax burden at that time. Such a policy is not foresighted, or fair to the future citizens of Alameda.

In order to insure that this policy of laying aside each year a sum for the pension reserve, will be continued by succeeding administrations, the present council, has adopted a new pension ordinance, incorporating that policy and definitely laying down rules for the accumulation of certain sums. This policy being in the form of an ordinance it is quite improbable that succeeding councils will change the policy. As a consequence, the present council can now feel confident that the pension system has been placed on a basis of permanent stability.

MUNICIPAL CHARTERS IN THE MAKING

By WILLIAM J. LOCKE,
City Attorney of Alameda

Mr. Chairman and Ladies and Gentlemen: There is perhaps no more important duty devolving upon a citizen than participating as a member of a Board of Freeholders in the framing of a city charter. The constitution of California provides that all cities of 3,500 population and over may elect, under the provisions of the constitution, a board of fifteen freeholders, to prepare and submit such a charter for their city, to govern the city, instead of the general laws of the state, or instead of a freeholders' charter under which they may already be operating. There is no machinery provided in the constitution, or in the general laws, for the selection of those fifteen freeholders. And you can readily conceive that, unless some interested bodies make it their business to initiate the matter of securing a new charter, when an election is called, any Tom, Dick or Harry may run for the position of freeholder. Of course, they can run, anyhow. But what will the result be unless some provision is made for endeavoring to secure the right freeholders? It will be found that you will have elected in that capacity, men and women who are absolutely unqualified for the work. And of course it will naturally follow that the charter will be unsatisfactory, unless a miracle should intervene. So it stands to reason, we may say that in order to secure a good charter, it is necessary to secure a good board of freeholders to frame that charter.

I think perhaps you will all be interested in knowing just how the new charter of the City of Alameda was framed, and how the Board of Freeholders were selected to frame it. The

plan followed there has since been adopted in quite a number of cities, and has been successful in every instance. The existing government in Alameda being unsatisfactory, some years ago resolutions were introduced by one of the members of the council favoring a new charter. A Board of Municipal Reference and Education was appointed, pursuant to ordinance, to recommend some form of charter for the city. I happened to be a member of that board. We went to work diligently, meeting night after night for several weeks. Finally one of the members of the board conceived the idea that probably our work would be all in vain, calling attention to the fact that after all the preparation of the charter must be left to a Board of Freeholders. The other members realized that to be true, so finally they decided to adopt a plan for securing, as they thought, the election of competent men and women to serve in that capacity. First they proceeded to interest the Chamber of Commerce. The President of the Chamber of Commerce was visited. His attention was called to the fact that a new charter was demanded, and that his assistance was desired. As head of the chief civic organization in the city he was asked to send a communication to the other civic organizations, and urge them to hold a meeting and consider the advisability of forming an organization for the express purpose of getting a good Board of Freeholders. That was accordingly done. A meeting was held and an organization was formed. In that case it was given the name, "The New Charter League." A constitution was adopted, meetings were held and con-

siderable enthusiasm aroused. The New Charter League put up a ticket, and that ticket was almost unanimously elected. I have referred to these preliminaries to emphasize the necessity, when the time arises for a new charter to be drawn for a city of taking some scientific method of securing if possible a competent Board of Freeholders to frame the instrument, because unless that be done the instrument will in all probability be unsatisfactory, and will accordingly be defeated.

One of the first things necessary and quite important after you have your Board of Freeholders selected, is to arrange the form of charter or rather the order in which its various parts should be arranged. You will observe, on examining some of the existing charters, that there seems to be no standard form followed. Some of them will start in by taking up the name and powers of the city, and then follow with the matter of elections. Others will take up the matter of fiscal management. There seems to be no standard form of arrangement other than the form laid down by the National Municipal League, and that form as I understand it, treats the various matters to be dealt with in accordance with the arrangement laid down in our principal legal authorities, such as the Encyclopedia of Law, and other works of like character on the subject of municipal corporations.

There is no standard form of arrangement, whereby the various subject matters touched upon in a charter are treated. And I think perhaps for want of a better plan, that general plan might be followed. It will, I think, be conceded that some plan should be adopted. Of course, the first thing to be determined upon after your Board of Freeholders is elected and organized, is to decide upon the form of government. In California and perhaps throughout

the Union, the various forms of government applicable to cities are divided into three general classes, one, the council plan, in which the council sits as a semi-administrative body; next the commission form; and finally, that form which seems to be more popular than the others at this particular time, the manager form.

The arrangement of which I speak treats upon the various matters in this general order: First, name and boundaries; second, powers; third, the council and terms of office and duties; fourth, meetings; fifth, officers and duties—elective and appointive; then the officers appointed by the manager; sixth, elections; seventh, fiscal management; eighth, initiative, referendum and recall. Of course, there are many other matters that may be treated of in the charter, but these are the principal matters, to which I purpose calling your attention to-day.

Taking up first the name and boundaries of the city. The name is of course a matter that may be disposed of in a single paragraph. But the question of boundaries cannot be so treated in many cases. It is regarded as legal by city attorneys and other authorities, to merely refer to boundaries as they are at present. In other words that the city shall have the same boundaries as now exist. That is deemed sufficient. The Board of Freeholders which framed a new charter several years ago for Los Angeles, treated the matter of boundaries in that way. But in some cases, where there have been numerous annexations of territory or consolidations, it might be better to describe the boundaries. That is a debatable question. There is something to be said on both sides. A committee of a Board of Freeholders recently discussed that matter in my presence to a considerable extent, and finally concluded that it would answer

the purpose just as well if they referred to the matter of boundaries in a single paragraph, so they simply declared that the boundaries would be as they are at present. They can be referred to very easily and found, if the occasion arises to find them; but it is not often that the occasion does arise to look up the boundaries of the city.

A more interesting topic is that of the powers of the city. Springfield, Ohio, was the first city to adopt a charter wherein the powers of the city were defined in a single paragraph, and a number of attorneys have raised the question as to the sufficiency of referring to the powers of a city in this way and defining them in a single paragraph. That matter has been subjected to very careful investigation by some of the leading authorities of this country, notably Clinton Rogers Woodruff, former Secretary of the National Municipal League. I have a letter from him on the subject wherein he expresses the opinion that a single paragraph is sufficient. The language of the constitution of Ohio, referring to powers of cities, is quite similar to the corresponding language of our California constitution, and it is his opinion that there is no doubt as to its sufficiency. That question as to the sufficiency of describing powers in one paragraph has been brought to the attention of the courts of the State of Ohio, and the courts have decided there that the city of Springfield had sufficient powers under the general paragraph set forth in the charter. When the subject of powers is handled in that way, the language used is very similar to the following (I will read a short paragraph from the proposed charter of the city of Santa Rosa, which will be voted on by the people of that city on Nov. 7th next):

"Section 3. Powers. Said city, by

and through its council and other officials, shall have and may exercise all powers necessary or appropriate to a municipal corporation, and the general welfare of its inhabitants, which are not prohibited by the constitution, and which it would be competent for this charter to set forth particularly or specifically, and the specification herein of any particular powers shall not be held to be exclusive or any limitation of this general grant of powers."

Passing that subject we will take up the matter of the council, the legislative body of the city. I may say that, with respect to the number of councilmen, with the exception of the largest cities of the state, five members are deemed sufficient—for a city running up to say thirty or forty thousand inhabitants, five councilmen are deemed adequate. If the size of the city is greater, why that would undoubtedly warrant a greater number of councilmen. And, of course, the amount of territory over which a city spreads is also a matter of consideration in determining the number of councilmen.

Regarding the salaries of the councilmen—that was touched upon by Mr. Seavey—it is the general practice, in most of the smaller cities, to make no provision for compensation to councilmen. That is not done because it is just, as I think every one who knows anything about it will concede that it is not just. Councilmen do serve their cities by giving them the benefits of their wisdom and experience, and by giving a great deal of their time, and they are really worth a great deal to a city. But there is this objection to giving them compensation: The moment provision is made for any considerable compensation, you will find a lot of unworthy persons running for the office, not for the purpose of serving the city, but for the purpose of securing the compensation. And that

is a serious objection. It is a practical objection and should be seriously considered.

Then again in the so-called manager form of government, the council is not required to perform the numerous duties which a councilman must perform if he has any administrative functions. Under the manager form of government, the city council is purely a legislative body and serves like the board of directors of a private corporation, simply meeting to hear the report of the manager, if it be the manager form of government and his recommendations. Thereupon they listen to any reports or suggestions for improvements, as the case may be from citizens, and determine whether they shall be done, leaving the doing of it to the executive department. When a city is governed in that way you do not find that the councilmen are called upon to perform so much work or give so much time as to justify very much compensation. Any more compensation I would say than is paid to the directors of a private corporation is not at all necessary. The manager form of government, indeed, contemplates that the municipality shall be run to a large extent in the same way as a private corporation is run, and that the doing of the work, the carrying out of orders of the council, shall be left to the administrative department, with the manager as its responsible head.

Of course, if you have the commission form of government, or the semi-commission form of government, where the council takes upon itself the performance of some of the administrative functions, there is greater justification for compensation. Hence we find that in all charters based on the commission form of government, compensation is provided for the councilmen, because the councilmen perform the dual service of acting as members of the legislative

body, and also as administrative officers.

The next question which invariably arises in the framing of a charter is to know just which officers should be elective and which appointive. And here we have much difference of opinion. Very often political considerations have to be recognized. Take, for instance, the situation to be met when a city of the fifth class, attempts to adopt a charter—say a charter providing for a manager form of government. In cities of the fifth class there are more elected officials than in cities of the sixth class. And when you attempt to provide that most of the administrative officers shall be appointive instead of elective, you immediately find opposed to you a great many citizens who do not understand the matter, and think you are trying to deprive them of their rights, when as a matter of fact, all you are trying to do is to get better government. Sometimes it is necessary for that reason to allow certain administrative officers to remain elective. It is generally conceded that where the responsibility is placed upon the council or the manager to select the officials, they are careful to select those who will serve them well, so they may not be discredited by the selection of poor assistants. As to the manager, he is of course animated solely by the desire to select the most competent men to assist in making a success of his administration.

It is generally provided that the terms of the councilmen should be arranged so that they will alternate. That is the provision, of course, in all the sixth class cities. They hold office for four years each, and their terms alternate—two will go out this year and two years from now three will go out. So you will always have at least two experienced men on the job. However, if you have proportional representation such as the Hare system, they all go

out at one time. In Sacramento that is the case. There the entire nine councilmen have to stand for re-election. That means, of course, there is the possibility of an entirely new board being elected, but it is rather a remote possibility under that system of election.

Speaking of the offices which should be elective and which should be appointive, I might refer first to the office of treasurer. I might add incidently, that a Board of Freeholders, trying to put over a new charter, should make as many of their administrative officers appointive as they possibly can without jeopardizing the success of the charter. The office of treasurer is one which may, if necessary, be left to election. It is a matter of no tremendous significance whether he be appointed or elected. His duties are well defined, and he cannot affect the more important administrative officers or jeopardize the success of their work.

Another debatable matter is the Board of Education. Should the members be elected or appointed? In Alameda they are appointed by the mayor. In many other cities they are elected. On the whole, our boards of education appear to give general satisfaction whether elected or appointed, and I am inclined to believe it is better not to disturb a situation which appears to be giving satisfaction.

Next comes the question of city judge. Your judge, of course, must frequently determine the validity of city ordinances. It naturally follows that he should not be subject to the influence of the council. If he is appointed by the council he will naturally be more inclined to uphold an ordinance than he would be if he were elected by the people. This is a more important matter than could possibly arise in connection with the office of the treasurer. When the marshal was an elected official there were many

cases where he absolutely refused to enforce ordinances passed by the council, and the council was left almost powerless. The same situation might arise with respect to a municipal judge if he were entirely dissociated or disconnected with the council and not subject to their control. He would, of course, be absolutely independent if he were elected, and we know that men are often elected, not because of their qualifications, but because they are good fellows and have a large acquaintance. Hence I would be less inclined to advocate the election of a city judge. In all the small cities of the state the town judge is appointed.

The council appoints the mayor usually from their own body. This is invariably the case where we have no mayor elected by the people. I think it is a better idea—that the mayor should be simply a ministerial officer. His duties are merely ministerial, as he simply acts as presiding officer of the council and represents the city officially in the signing of warrants, bonds and other documents.

The next office is that of manager. One of the questions in relation to the office of manager is that of his removal. In the city of Alameda the charter provides that the manager shall be appointed by a majority of the council, but he can be dismissed only by a four-fifths vote. That is matter for some consideration. I had the pleasure of attending a city manager's convention in Springfield several years ago, and I submitted the idea to them, but those with whom I spoke did not think there was any merit in it for the reason that if a majority of a council wanted to get rid of a manager they would find some way of making it so uncomfortable for him that he would quit. I am inclined to think their view is correct. Nevertheless there is a moral influence there if you have a safeguard of that kind, by

providing that the manager cannot be removed except by a two-thirds or four-fifths vote. It gives him some stability in office, showing that it was the intent, as disclosed by the charter, that he should not be removed for trivial reasons, such as political activity or the belief that he was engaged in political activities. Then there is possibility of the election of a majority of the council not in sympathy with the manager form of government who might oust the manager and get somebody who was utterly incompetent or unscrupulous. There is that possibility, of course. In framing the charter of the city of Sacramento, the freeholders adopted that provision and have it incorporated in the charter. The city of Sacramento had a fine Board of Freeholders. They considered this question very seriously, and finally concluded that the provision of the Alameda charter was meritorious, so they incorporated a similar provision in the Sacramento charter, and whereas, a majority may appoint a manager, it takes two-thirds to dismiss him.

There are two charters that I think of which have recall provisions for the manager, one in California, and the other in Dayton, Ohio. It is universally conceded that the provision for the recall of the manager is a mistake, and has no place in a city charter. The manager should not be subject to recall. If the council appoint a bad manager, why the council should bear the brunt of the blame, not the appointee. That is the general opinion. In an industrial corporation that would be the view taken by the stockholders—it would not be against the individual, but it would be against the board of directors.

In small cities it is often provided that the engineer and street superintendent may be consolidated in one and the same person, and it has been suggested in still smaller cities, the manager may serve in

that capacity himself, that is, where the manager is also an engineer. This applies to quite small cities, of course. I cannot see any objection to that. It makes for economy, and it has been found to work out very satisfactory. In the city of Alameda we provide for a city engineer, but his office is consolidated with that of street superintendent. Alameda, I may say, is a city of 30,000 people.

The next office is the assessor. There again is a debatable office as to whether or not the assessor should be elected or appointed, and, if appointed, whether by the council or by the manager. There is much to be said on both sides of that question. I think, however, that there is an overwhelming justification for provision that the assessor be appointed instead of elected. But as I said before, this is one of those offices where, in consideration of the question of whether you are going to carry the charter or not, you may have to make a concession and provide for the election of the assessor as well as several other officers who might better be appointed. Yet, on the other hand, it is recognized that the office of assessor is a very important one, and that assessing should be scientifically done; and in this connection I want to call attention to the provision of the Santa Rosa charter, adopted from some other charter existing in this state, I think it is the Santa Barbara charter. It provides for the making of a scientific assessment, reading as follows:

"Provided, that in preparation for the first assessment after this charter takes effect, and at intervals of five years thereafter, the council shall, at or before its first meeting in February, provide for a scientific appraisal by an expert of all real property in the city including improvements. Such appraisal shall be made as of 12 o'clock noon of the first day of March, and shall be used by

the assessor as the basis of assessment, for taxation purposes, subject to his appropriate revision annually for the intervening years. Whenever such expert appraisal is to be made, the council may, under agreement with the county board of supervisors, provide by resolution for a joint appraisal for the use of the city and the county, in which case such resolution shall authorize payment by the city of not more than one-half of the total expense of such joint appraisal."

In some municipalities, the assessor occupies a somewhat embarrassing position at times. He has connections, social and otherwise, which to some extent, do, or are likely to if they do not, interfere with the proper administration of his duties. And a provision of this kind, which will enable the city to bring in and employ the services of an outside appraiser, especially an expert who has had training in the matter of making appraisals in a scientific way, under the Somers system, or some of the other scientific systems, is a very desirable provision in my judgment.

Taking up the question of elections, there is a provision in this charter which was adopted from the Alameda charter and which I think is of great merit. We believe it is in Alameda—we find it works out well, and apparently there are no objections to it. It is in reference to the matter of elections, and I am just going to read it to you—it is a short provision:

"General municipal elections shall be held in the city on the first Tuesday of April in each even-numbered year, under and pursuant to the provisions of the general laws governing elections in cities of the fifth and sixth class, so far as the same may be applicable, and except as herein otherwise provided.

"At least twenty days before the day of election, each candidate for an elective

office, including candidates for members of the Board of Education, shall file with the city clerk a statement containing the following information in the order herein set forth: (a), his name; (b), the office for which he is a candidate; (c), his present residence and occupation; (d), the various kinds of business or employment he has been engaged in during the last five years, and where, also the positions of importance and trust which he may have held in connection therewith; (e), the civic, improvement or other organizations which he has been a member of within the past five years, and the positions of honor or trust which he may have held therein; (f), the public offices which he ever held, if any, as principal, deputy, or employe; (g), the experience, training or education he has received, which, in his opinion, would qualify him to fill the office for which he is a candidate; (h), the length of time he has been a taxpayer in the city; (i), the principal public improvements or betterments which he would urge the accomplishment of if elected; (j), the names of not more than fifteen residents who know something of his character and abilities; (k), any other information which, in his opinion, would enable the electors to determine his qualifications for said office."

Now, we have on our statute books a law which, for want of a better name, we have known as the Purity of Elections Law, designed to limit the amount of a candidate's expenses. If there is any law in the state which has been subject to abuse, I believe it is the Purity of Elections Law. I remember distinctly only a few years ago an election being held in San Francisco, which was being bitterly contested, and every empty store, every saloon, every billboard and signboard in the city was covered with placards announcing the

candidacy of this man or that man, and conveying no information whatever to the voter which would enable him to determine the comparative qualifications of the candidate. The placard would merely read, "James Smith for Mayor, present incumbent." Perhaps the next placard would read, "Vote for John Brown for Mayor, Labor's Choice." That is all the information the candidate would receive. Yet those placards were in some cases printed on leather, and other expensive materials, and I will venture to say that several hundred thousand dollars was spent by the candidates in proclaiming their candidacy, without conveying any information of value to the voter. Isn't the voter entitled to some information? If one is an applicant for a position with the United States Government, under the civil service regulations, he is obliged to give information such as is set forth here in this proposed provision of the Santa Rosa charter. He is obliged to tell who he has worked for during the last five years, and what experience he has had. If he seeks employment with a private corporation, he is obliged to give information of that kind. They won't employ anybody, without ascertaining to some extent at least, whether the person is qualified. And in my opinion a provision of this kind is not only fair and just and reasonable, but is demanded, and no one can take exception to it.

With reference to elections again, we have the proportional representation system, which was adopted by the city of Sacramento, Sacramento being the largest city in America using the Hare system, and I may state that it has apparently given satisfaction to the voters in Sacramento. It has been said that the cure for the ills of democracy is more democracy, and the Hare system gives it. I am an advocate of the Hare

system of elections, whether for a small or a large city. I think there is considerable merit in it. We know that one of the evils which besets this country to-day is the apparent apathy which the ordinary citizen has for governmental affairs. You know that if you have a meeting in your city to-day over some governmental matter, you won't have a corporal's guard in attendance, unless it is something very unusual, or you have a very unusual speaker. As a rule, you can't get the public attention as you should have it. It is the same way in elections. We had an election in Alameda County recently, and in the city of Alameda there was one person out of eleven registered who voted at that election. Just think of that! That is a serious situation in this country, especially where we boast that we have a government of the people, for the people, and by the people. It certainly is not a government by the people, if we have a third or a fifth of the people participating in the government. And that is exactly what we have a great deal of the time in a great many places. A great many people refuse to participate because they are in the minority, and there is no use of their going and wasting their time to vote. The Hare system gives the minority some rights. It gives them representation on the legislative body. It provides that if, for instance, 33 1-3% of the voters should get behind three certain candidates, they are sure to elect those three candidates, and have 33 1-3% of the representation on the legislative body. When a citizen knows his vote is going to count, when he is opposed to the majority, and happens unfortunately to be on the side of the minority, and he may be right—frequently the minority is right, and it develops after investigation that they are right—he will vote. And why should they not have representation in the

(Continued on page 496)

REPORT OF THE SECRETARY-TREASURER

H. A. MASON, of San Francisco.

Mr. President and Members of the League: No doubt all of you heard with deep interest and took to heart the remarks of President Wilbur of Stanford University before the assemblage this morning. I know I did, and especially that portion of his remarks where he said that we should no longer follow the opinions of our grandmothers. I have been connected with the association now for about twenty-five years, and perhaps some of you may feel as though I was getting into the grandmother class. So I have nothing to report to you at this time, particularly. I do not think it is necessary to make many suggestions or venture opinions, because they do not always lead to anything really substantial. It has been my custom heretofore, in submitting a report, to make a number of suggestions, and sometimes, in fact, very frequently, things that I have said have started something. Two years ago at the meeting at Chico, I believe I did start something which we have not yet finished, and possibly we ought not start anything else until we finish that which has been begun. So I will content myself by presenting merely the financial statement, and may make one or two brief suggestions following that.

The financial statement shows that a year ago we had on hand \$680.00. We received from dues \$5,170, sold the bonds that we had for \$500, and received from A. Carlisle & Co., \$183, making total receipts of \$6,534. The disbursements aggregated \$5,562, leaving a balance on hand of \$972. I will not go into the detail of expenditures.

The only thing I would offer in this connection is this: You will see that the League is just about holding its

own, paying its own way not accumulating any amount of surplus and not spending any very large amount of money for new work. Some of you may recall that a year ago I suggested that we ought to enlarge the sphere of our activities, to do which we ought to have additional revenues, and I then suggested that there should be some steps taken towards increasing the revenues of the League. I can see a wonderful field for the activities of this League. And, following President Wilbur again, we should be sure of our facts, and there is in that connection a field of activity which this association I think could be profitably engaged in, and that is the ascertainment of facts.

Recently I saw a published statement by an association of contractors, where it was set forth that the cost of doing work by the public directly, that is, by public agency, was so much, and the same work could be done by private concerns for a certain amount less. It struck me, "I wonder if those are the facts?" What agency is there for ascertaining what those facts are? We are being confronted to-day with all kinds of statements connected with our operation of public utilities, where it is claimed there is no profit to the municipalities, that operative cost is being paid for by taxation, and following that, there are charges made that our municipal governments are wasteful and extravagant; that the public does not get the worth of the sums which it pays in taxes. What are the facts? Are the facts known? Can we rely upon these things which go out in the form of facts? It seems to me that this organization ought to interest itself in and make an investigation, so that we can know positively just exactly what

is being done for the public, how much it is costing, whether it is getting its money's worth, or whether it is not. It is important that we should know the facts rather than to have opinions. And I think it would be a great work of this organization if we could organize a bureau of research, that would make an exhaustive study into the various activities of municipal government and publish them to the world and publish them in a way that their authenticity cannot be disputed. It would cost money to do that, but the question is after all, isn't it worth while to so expend what it would cost us? I repeat the suggestion, therefore, that we should secure additional revenue to the League and enlarge our sphere of activity.

I do not know, and care but little, whether it is acted upon this year or next. But I want you to have it in your minds, and, if the suggestion is worth anything, let it come from the body of this convention, and not from me.

I want to thank you again for the consideration which this organization has given me, and the support which has been accorded me by the League for the last twenty-four years. My heart feels grateful as I see the results of the efforts of the League. I am proud of the fact of its growth. It is a power and an influential power for good in the community. And I hope now, indeed I know, that we will find profit from this meeting of ours.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912

of PACIFIC MUNICIPALITIES and COUNTIES published monthly at San Francisco for October 1, 1922.

STATE OF CALIFORNIA,)
City and County of San Francisco.)ss.

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared Wm. J. Locke, who, having been duly sworn according to law, deposes and says that he is the managing editor of the Pacific Municipalities and Counties and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, A. Carlisle & Co., 251 Bush Street, San Francisco.
Editors, Mason and Locke, Pacific Building, San Francisco.
Managing editor, Wm. J. Locke, Pacific Building, San Francisco.
Business Managers, none.

2. That the owner is: (If the publication is owned by an individual his name and address, or if owned by more than one individual the names and address of each, should be given below; if the publication is owned by a corporation the name of the corporation and the names and addresses of the stockholders owning or holding one per cent or more of the total amount of stock should be given.)

Mason and Locke, Pacific Building, San Francisco.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state).—None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is.....
(This information is required from daily publications only.)

WM. J. LOCKE, Managing Editor.

(Signature of editor, publisher, business manager, or owner.)

Sworn to and subscribed before this 4th day of October, 1922.

(SEAL)

B. M. JACKSON,
(My commission expires Sept. 19, 1923.)

Paving Patent Upheld

Immense costs of litigation plus hundreds of thousands of dollars in royalties—in all a bill which may exceed \$300,000—is what will have to be stood by the state highway fund of Oregon as a result of years of demagogic agitation against paying anything for the right to use patented paving. This \$300,000 might have been expended for miles of paving and roadbed construction had it not been wasted in this silly attempt to overturn a patent that had been held valid by the highest federal courts every time its validity had been brought before them as an issue to be decided.

For years these demagogue politicians and newspapers have been making capital out of fighting patented paving. They all admitted the paving was a superior paving, but grounded their opposition upon the fact that a royalty would have to be paid for its use.

In Oregon we have a state highway commission which in quality of personnel is of the highest rank—the foremost men of the state in personal integrity and demonstrated business success are and have been its members—and this highway commission contracted for miles and miles of patented paving, giving it the preference at an equal price in competition with unpatented pavements of supposedly equal quality.

The test suit was brought against one contractor only, and covered only 75,000 yards. Judgment for the full 25 cents a yard was awarded by the Federal District Court, the opinion being handed down by Federal Judge Robert S. Bean.

The unfortunate thing about it, aside from the reputations wrecked by demagogic newspapers and the wasteful acts by incompetent officials, is that the final huge cost must be paid out of the highway fund instead of from the property of those who prospered by a wicked agitation.—Oregon Voter.

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U. S. Bureau of Public Roads to Begin New Series of Pittsburg Road Tests

What promises to be the most important investigation of road material and construction yet undertaken, will be instituted at Pittsburg, California, by the U. S. Bureau of Public Roads, according to a recent statement by Dr. L. I. Hewes, Deputy Chief Engineer of that Bureau in San Francisco. These tests will be based on results of previous investigations at Pittsburg and on the Bates road tests in Illinois, which are now bearing completion.

Although the previous tests are of particular value to highway engineers, the interest which is being shown by the general public indicates the vital bearing of good highways on public affairs. The results have been easily explained in non-technical language, and invaluable information has been obtained on some paving types.

It is rather unfortunate, in the light of Pacific Coast conditions, that neither the Bates road nor Pittsburg tests included black base pavements—that is, asphaltic concrete base and surface. The Pittsburg test oval was built of Portland cement concrete, and plain and reinforced types were compared. In the Bates test, sections were constructed of brick, Portland cement concrete, 4 to 9 inches in thickness, plain and reinforced, and of macadam and Portland cement concrete bases with asphaltic surfacing. The asphaltic surface in all of the latter types consisted of a thin layer of Topeka mix $1\frac{1}{2}$ inches and 2 inches thick. This was laid on varying thicknesses of macadam and of hydraulic concrete, and on five sections an additional $1\frac{1}{2}$ inch of binder

course was used, with $1\frac{1}{2}$ inches of Topeka surface on a hydraulic concrete base.

Dr. Hewes states that several wholly new sections will be studied in the new Pittsburg test, and that these will include asphaltic concrete designs and also precast slabs of concrete.

The direct comparison of hydraulic concrete and black base construction will no doubt bring out many interesting facts concerning these much discussed types of hard-surfaced pavements.

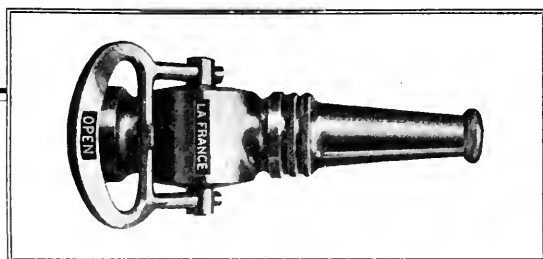
The recent award by San Diego County for the pavement of 2.2 miles of road from Nestor to Tia Juana, is doubtless good news to pleasure seekers and tourists.

This stretch of unimproved earth road, famous for "what lies at the other end," is soon to be converted into a veritable boulevard.

This was the gist of the decision of the Board of Supervisors of San Diego County, when on October 9th they awarded a contract to the California Construction Company for paving this stretch of highway with five inches of asphaltic concrete.

Bids were called on October 6th for alternate types of pavement; 5-inch hydraulic concrete thickened to 8 inches at the edges, and for a straight 5-inch asphaltic concrete. The latter type was selected.

Since the road will probably be completed by the latter part of November, those persons who have planned to motor to Tia Juana for the opening of the racing season can look forward to a trip over first class completed black base highway on this stretch.



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Built as sturdy as a fire truck. This nozzle is used and endorsed by many of the largest fire departments. It insures perfect alignment in the water way. Self-packing. Handle of manganese bronze to withstand rough usage. Shut off valve gives complete control of the water line.

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131 NEW MONTGOMERY ST.

SAN FRANCISCO, CAL.

As
Assessing Time
Draws Near

Then you naturally think of

Assessment Lists
Assessment Rolls
Tax Bills

and we want you to also remember that A. Carlisle & Co.
are doing the work for the majority of cities
and towns for the coming year.



46 years of continuous
service to municipalities
is our guarantee.

That's good insurance.

A. CARLISLE & CO.
SAN FRANCISCO

SOME MORE OF YOUR MONEY

What's a thousand dollars one way or the other?

That is, when millions are involved!

The opponents of the Water and Power Act, No. 19, are said to have spent a sum estimated at \$3,000,000!

How far under the real figures that may be is not known, for the opponents of No. 19 failed to file with the Secretary of State their statement of expenses five days prior to the election, as is required by law.

However, for not having filed their statement they are facing the possibility of being fined \$1,000.

When power corporations spend money \$1,000 is charged to tips, etc. When it's so cheap to evade the law, why be bothered with figuring out your expenses, particularly if the magnitude of the amounts spent to defeat a measure would reflect against your good intentions.

The fight against the King Tax Bill, waged for one month, cost the private corporations one million dollars, no less.

The fight against the Water and Power Act, fought for three months, was not a bit less thorough throughout the state than was the tax bill fight; pages and pages of advertising were bought; the state was circularized three times (at \$75,000 a time) and every city, town and water tank had its corporation hireling, paid to tell you to beat No. 19.

Three million dollars is a conservative estimate.

How badly did the corporations want No. 19 beaten?

They told you No. 19 would increase your taxes.

Well, it will, because it was defeated. No. 19 already has cost YOU \$3,000,000; spend by the corporations to defeat a measure of the people.

People's money used to betray people so that people defeat people's measurers. You're the loser all around.

Heads you lose, tails the private corporations win.

Certainly, it's plain that the corporations spent three million dollars to maintain their fat rates! Who pays the rates?

Well, if you pay the rates the \$3,000,000 is your money, too.

And now add \$1,000 more to rates, the fine against the corporation for not filing their statement.

—From the Sacramento Star.

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Donner Grade Road to Be Advertised

The California Highway Commission recently sent out advance notice that they would advertise for bids about the latter part of November for the construction of a portion of State highway in Nevada County, known as the Donner Grade between Donner Summit and Donner Lake, Road III-Nev.-37-C.

The Commission was desirous that prospective bidders view the site of work at that time in order to properly examine the ground and the amount of work to be done before winter, as at the time of advertising for bids, the ground may be covered with snow to such an extent as to prevent thorough examination. This will enable the Commission to award a contract this winter to permit of early construction work in the spring as soon as favorable weather conditions prevail.

Location

The highway to be constructed and referred to above is in the County of Nevada and begins at a point about 500 feet northeasterly from the west portal of the Southern Pacific Railroad tunnel at Donner Summit and extends in a general easterly direction over new rights of way to a point in the present state road at the west end of Donner Lake (Station 20—00 to Station 173—00), a distance of about three (3) miles.

Description of Work

The work to be done will consist of constructing a graded roadway 21 feet wide in cut and 24 feet wide in embankments and the installation of drainage structures.

For the information of prospective bidders, the alignment was staked and marked for easy identification in order that the line might be readily followed its entire length.

Contract Awarded for State Highway in Tulare County

The California Highway Commission awarded contract, November 15th, 1922, for five-tenths (0.5) mile in length of State highway in Tulare County, through Tipton (VI-Tul-4B), to be surfaced with asphalt concrete, to Valley Paving and Construction Co., Visalia, California, on bid of.....\$11,475.00
Engineer's estimate..... 9,775.00

PLAYGROUNDS AS CHARACTER BUILDERS

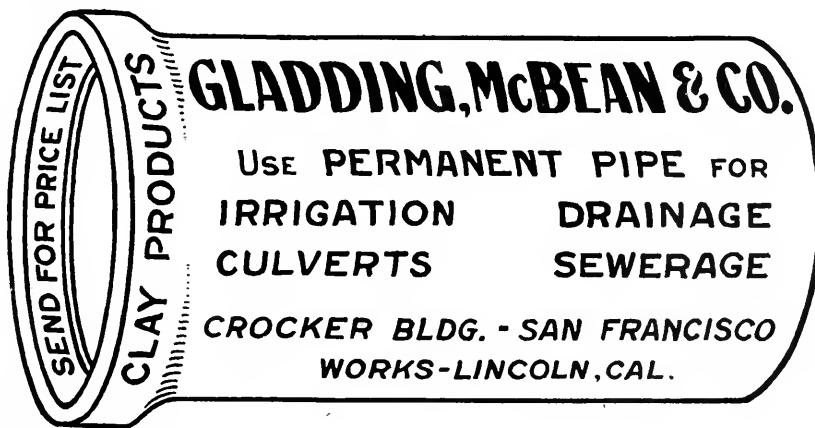
On city playgrounds, your children will be given an opportunity to play, under trained play-leaders, at games which help them to develop both mind and body. If left to themselves, children are apt to spend their time at aimless play, which leads nowhere in particular. Yet play can be one of the biggest character-forming forces if it is directed along the right lines. Children express their interests and powers in their games. If they are given a wide field for their invention, and their activity is guided, play becomes very important in the education of children.—Detroit Board of Education.

BUILDING THE CITY FOR THE FUTURE

Make no little plans; they have no magic to stir men's blood and probably themselves will not be recognized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever-growing insistency. Remember that our sons and grandsons are going to do things that would stagger us. Let your watchword be order and your beacon beauty.—Daniel H. Burnham.

BANKING HIGHWAYS AT CURVES

According to a recent announcement from the offices of the Permanent International Association of Road Congresses in Paris the British Ministry of Transport has directed its divisional road engineers to see that local officials in constructing highways in England, allow for super-elevation of roadways on corner curves wherever desirable. The action was taken following investigation and recommendations by the British Roads Improvement Association which pointed out the benefits to be gained through banking at sharp curves in the way of safety to traffic. In the event of two vehicles meeting at a curve, it was declared, they could be manoeuvred on a banked curve with more certainty and less risk of skidding. It was also declared that there would be much less wear upon the pavement. French road engineers long ago adopted the banked curve and in some parts of the United States they are now in use.



GLADDING, McBEAN & CO.

USE PERMANENT PIPE FOR
IRRIGATION DRAINAGE
CULVERTS SEWERAGE

CROCKER BLDG. - SAN FRANCISCO
WORKS-LINCOLN, CAL.

University of California,
Extension Division.
November 13, 1922.

The use of visual aids in education is as old as education itself. Proof of this may be found on the Egyptian obelisks, in the archaeological remains of Greece and Rome, and even in the Ming tombs of China. Each age has devised its own methods and means. We have used pictures, models, stereopticon slides and the like—and now in addition the moving picture.

Every school should have a collection of visual aids. Pictures, slides and models are inexpensive and may therefore be gradually collected. Motion pictures on the other hand and their upkeep are expensive. Therefore an adequate collection of films in any one school is usually out of the question, though the time is doubtless coming when most large city school systems will maintain such collections. Meanwhile, the needs of schools are being served, in part at least, by the Department of Visual Instruction. Among the schools in the State barely five per cent are equipped with projection apparatus. As this number increases there will be more and more incentive for producers to make motion pictures of genuine educational value. Distribution, too, which is now difficult, will then become easier. A practical suggestion on this subject, under present conditions, is as follows: A city school department may book films from the university and then circulate them among the schools in that city. In a rural community a superintendent may book films and circulate them in his district. This co-operative booking lowers the cost.

The Department of Visual Instruction is ready at all times to assist in forming plans

for visual work. Ways of making effective use of motion pictures and slides will be discussed from time to time in these pages.

Over 30 Tons of "Shot" for a Single Charge

When "Big Bertha" roared her first challenge in northern France, military opinion was that it was impossible for a single cannon to fire a shell of such size, and it was not until after a number of the huge projectiles had exploded that the truth about the big gun was admitted. But the peace time uses of steel shot make the effects of Big Bertha a mere nothing in comparison. Single charges of from 34 to 38 tons of steel balls, varying in diameter from seven-eighths of an inch to 5 inches, are used every day in peaceful industrial operations. Where "Big Bertha" demolished buildings, the modern shot demolish raw materials in cement mills.

Fine grinding is a necessity in the manufacture of Portland cement, and to secure the utmost fineness, steel balls are used. The balls are placed in large rotary tube mills along with the burned clinker, which when ground is Portland cement. As the mills revolve, the balls climb the sides and fall back on the clinker, rolling and crushing it to powder. It is ground to such fineness that at least 78 per cent of the powder will pass through a sieve having 40,000 holes to the square inch.

Before the adoption of steel balls for this purpose, flint pebbles were used, and large shipments were received from France and Denmark. At a few mills, especially on the Pacific Coast, they are still in use, as they can be found along the beaches and are relatively cheap.

Sacramento
Capital National Bank Bldg.

San Jose
Bank of Italy Bldg.

Los Angeles
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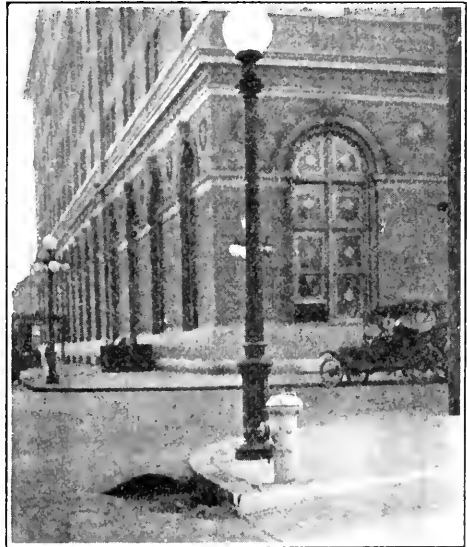
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Ten years ago, while Hotel Oakland was being built, Armco Corrugated Part Circle Culverts were being installed in the adjacent streets. The upper photograph shows the construction work under way.

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Pebble Pickers of the Pacific

Along the California coast you will find them at times—the pebble pickers. Especially after the high tides have receded, you can see them searching along the beach, stooping here and there to pick up a white flint pebble and drop it into the sack they carry. Pebble picking is their trade—their vocation. It affords them a living, for there is a regular market for the hard, white flint stones, and the ocean is kind enough to distribute the articles along the beach at frequent intervals.

Flint pebbles are in demand by the cement mills of the far west for use in the giant grinding mills. After the raw material from which Portland cement is made has been crushed to small fragments it is placed in the tube mills for pulverizing. In these mills it is ground so fine that 85 per cent of it can pass through a sieve finer than silk. To produce this fineness the flint pebbles are called on. From 12 to 15 tons of the pebbles, varying from the size of an egg to that of a baseball, are placed in the big tube mill, along with the crushed clay and limestone used in making cement. As the mill revolves, the hard pebbles climb partly up the side of the tube, drop down on the raw material mass, and slowly but surely grind it into a fine powder.

In most cement mills in other parts of the country steel balls are used instead of the flint pebbles. But in the far west, along the coast, the pebbles are still used, because their low cost makes it worth while. Small tube mills are charged with from 10 to 11 tons of balls,

while the larger ones contain as high as 34 to 38 tons. There was a time when flint stones from France and Denmark were in demand, but the steel balls have destroyed this foreign trade. In the Puget Sound region, pebble picking was quite a business a few years ago before steel balls came into general use in the grinding operation. Here the pebble pickers gathered the white flint stones from the beaches, while they were constantly on the lookout for more valuable agates and moonstones that were frequently found there. The pebbles used to sell for about two dollars a gunnysack full and were transported to market on large scows.

Fertilizer Used As Building Material Also

The farmer who takes particular pains in spreading the proper amount of "land plaster" as fertilizer on his acres would probably be amazed to know that this fertilizer has an important part in the manufacture of the Portland cement that went into the concrete in his silo, dairy barn, or manure pit. Yet, where the ordinary farmer probably scattered a few hundred pounds of gypsum on his land last year, the cement industry mixed 500,000 tons of the same material with the limestone and clay that goes into the makeup of modern Portland cement.

Gypsum is needed in cement to regulate its setting time. Without the addition of the proper amount of gypsum the cement would commence to harden before the workmen could get a batch of concrete placed in the forms or finished as required. At cement

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mills the gypsum is added when the clinker is being ground to an impalpable dust in the tube mills. In this grinding operation it is thoroughly mixed, and naturally extreme care must be taken to have exactly the correct amount of the material added. There is no difference in the quality of gypsum used in cement manufacture and for fertilizing purposes. The peculiar qualities of the material make it equally well adaptable to the two widely different uses.

The Art of the Wire Weavers

In the art of the wire weavers is found an industry that the average person hears but very little about. In a way this business corresponds to the textile industry, except for the fact that fine wire is used instead of threads of cotton, wool or silk. The more important uses for the product of the wire weavers demand the most exacting care in the weaving, for there must be exactly the same number of wires to the square inch, and the same number of holes in a given area.

The mining industry and the cement industry are the two largest users of testing sieves—one of the important products of the wire weavers. Both of these industries use fine wire sieves for testing purposes, and millions of dollars depend on the exactness of the tests. In the mining industry when ore is assayed it is absolutely necessary to have exact tests. A faulty testing sieve would give a faulty idea of the content of the ore—and huge sums of money might be lost.

In the cement industry the specifications of the United States Government and the American Society for Testing Materials demand that Portland cement be ground so fine that 78 per cent of the material will pass through a sieve having 40,000 holes to the square inch. The wire weavers are called on to weave a testing sieve meeting these requirements. It is necessary for them to spin a fine wire for the weaving—a wire finer than a human hair. Into every square foot of testing sieve of this standard, one mile of fine wire is woven. Two hundred wires are placed each way in a square inch of the sieve, and every wire must be equally distant from the adjoining one. It is a most delicate operation and requires the most exacting care.

Cement testing sieves will not only hold water, but they are finer than silk. A test made at one of the sieve plants showed that a piece of silk dress lining measured 91 openings to the linear inch; a silk handkerchief 110 openings, and a piece of silk dress material of excellent quality 187 openings. They were all coarser than the wire testing sieve, which must have 200 openings to the linear inch.

When the wire weaver completes a sieve it is inspected by the United States Bureau of Standards and is stamped with the governmental acceptance if found correct. At cement mills hourly tests are made to assure the uniform quality of cement.

Although the art of wire weaving is not widely known, it plays an important part in many industrial operations, and the safe investment of millions of dollars depends on the accuracy of the work.



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(Continued from page 394)

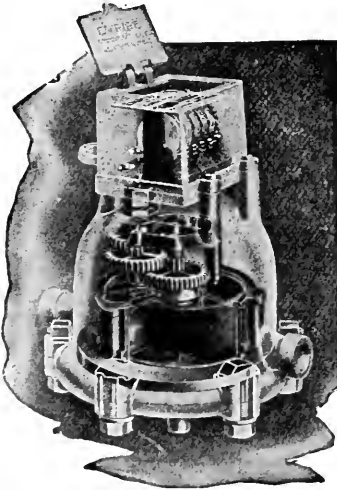
legislative body? That is the situation that prevails in many large cities. For instance, we may have among the voters two general divisions, we will say, for example, labor and anti-labor. Then there will be a large scattering element, which is not organized at all. And to make the example concrete, let us suppose that 40% of the people will vote for the labor ticket, and 35% will vote for the anti-labor ticket, that making 75% of the vote, and that the remaining 25% is scattered and not organized. What happens? The ticket which secures 40% of the vote is elected, and 40% of the voters secure 100% representation, and the other 60% are entirely without any representation whatever on the legislative body. That is a very unsatisfactory state of affairs. And one of the reasons why I believe in the Hare system of proportional representation is because it insures respectable minorities just

representation on the legislative body of the city.

I had marked here for discussion the matter of the budget system. But that has been taken up by Mr. Seavey, so there is no need of my taking up your time with that. Suffice to say, there must be a budget system for efficiency, and it should be carefully worked out.

I want to say one more thing in closing, and that is in reference to the initiative, referendum and recall. In this charter which I have before me, the Santa Rosa charter, two things are provided for in connection with the initiative, referendum and recall. In the first place, it provides that petitions shall not be circulated, but shall be deposited at three public places, to be designated by ordinance of the council, and the people shall be notified of those places and compelled to go there, the idea being that circulation of petitions is not satisfactory, and is really meaningless.

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We have had that matter exemplified in the city of Alameda in connection with our zoning ordinance, and I have no doubt other cities have had some instances of it. We will have a request come in from the majority of the people respecting zoning, and, while the matter is being heard, we frequently have another petition come in signed by a few of the other petitioners, asking that their names be withdrawn from the original petition. We have a fight on our hands now with reference to the location of apartment houses. We had a protest signed by a large number of the neighbors objecting to the erection of an apartment house in a certain location. In the first instance, there was a petition in favor of the location. Many of the original signers then submitted a supplementary document in which they withdrew their names from the original petition and finally many of those who were on the original petition, and subsequently withdrew their names, again

changed their minds—the second time—and want to favor the petition. So you can see what circulated petitions amount to. A man will sign almost anything, perhaps just to be accommodating. For that reason, it has been provided in a number of recent charters that petitions shall not be circulated in the matter of initiative, referendum and recall questions, but that they shall be deposited at a certain place, and notice published in the press, telling the people that an initiative or recall has been started, and that those who are in favor of it may go to the court house, or wherever it may be, and sign the petition. That, of course, means that those who sign petitions, under those circumstances, really mean what they say when they put their names to the petition. So there is a very excellent argument in favor of such a plan.

There is another objection to the recall as it stands on our general laws at the present time, and as it has been

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adopted in many city charters and that is this: The election of candidates at the same time that you vote for the recall of the official. It befores the issue and is absolutely unfair. For that reason it has been provided in many charters, and is provided in the proposed

Santa Rosa charter, that in case of a recall, the office shall be deemed vacant if the recall carries, and shall be filled in the same manner that other vacancies are filled by the city council.

I thank you for your attention. (Applause.)

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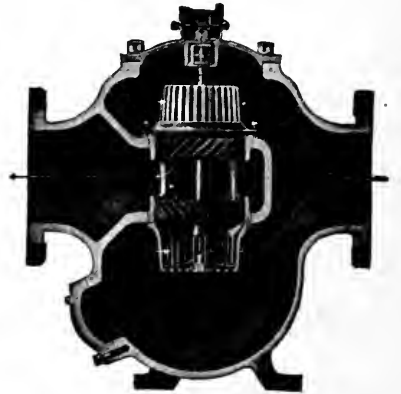
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AND COUNTIES

A Monthly Review of Municipal Problems and Civic Improvements

OFFICIAL ORGAN OF THE LEAGUE OF CALIFORNIA MUNICIPALITIES



GARDEN—CORONADO BEACH HOTEL, CORONADO—CONVENTION CITY—1923

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THE BOULDER CANYON PROJECT

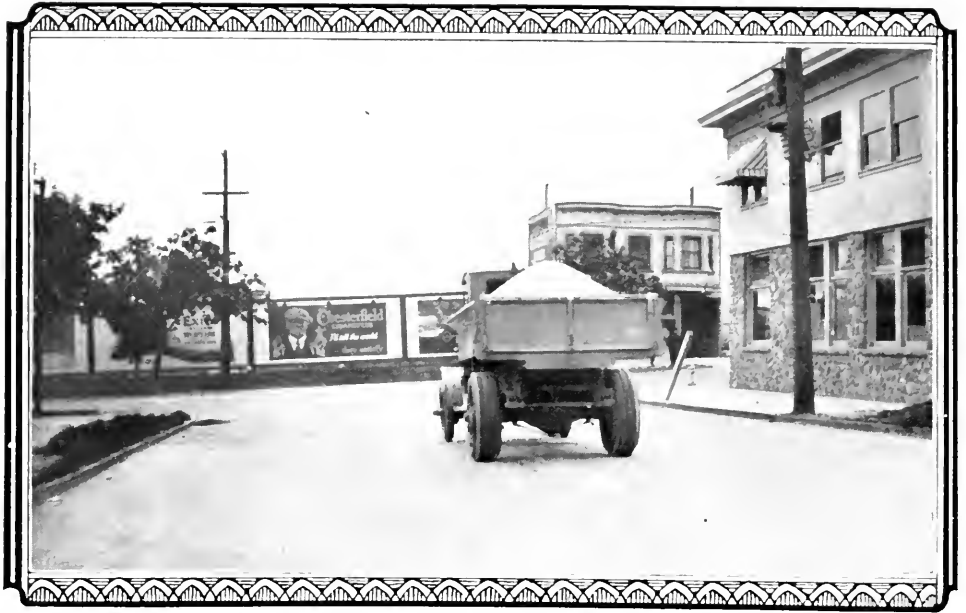
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THE PROBLEMS OF A CITY MANAGER

By Clyde L. Seavey, City Manager of Sacramento

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OAKLAND, CALIFORNIA. McAdam Street, looking west. This pavement was constructed in 1914, and consists of 2½ inches to 3 inches of Asphaltic Concrete on an old Asphalt Macadam Base approximately 3 inches thick. Records to November 1st, 1922, show that 17,014,680 tons of rock have been hauled over this pavement in heavy trucks without injury and without maintenance cost.

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DECEMBER 1922

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A. Carlisle & Co., Printers, San Francisco

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Organized 1897

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PUBLIC HEALTH AND HUMAN WELFARE

An Address Delivered Before

The League of California Municipalities, Stanford University, California
Tuesday, September 19, 1922

—BY—

DR. RAY LYMAN WILBUR

President of Stanford University

It is my intention this morning to take up with you for a while some of the problems associated with what we call public health. There is and will be continuous discussion upon that subject. Its importance is so transcendent that it demands attention.

There is in this field a remarkable combination of fact struggling against prejudice. In the upward progress of the human race, disease has always been one of the commonest facts known. Often disease was so terrible and so disagreeable, and the defenses against it were so unsatisfactory, that the habit was developed of accepting it as a visitation from the devil or from on high, or as a result of wickedness or the mistake or failure to carry out the proper incantations or something of that kind on the part of the "medicine man." We still have a large percentage of our population who think in terms of prejudice and of misinformation when they deal with the subject of the public health.

It is hard to realize that fact has replaced opinion in this field. Many years ago, not so many either, when I started to practice medicine, I came in contact with a patient and made a diagnosis of tuberculosis. I did so because I found the tubercle bacillus in the discharges of this patient. He had had another physician who had practiced medicine for forty years, and who said that it was not tuberculosis. The patient, being disturbed by this conflict of opinion, went to a prominent physician and said, "What shall I do, follow the young doctor or the old doctor? The old doctor gives his opinion that I have not tuberculosis; the young doctor says it is a fact that I have tuberculosis." And the physician that was brought in said, "You follow the young doctor. He has the facts. It is better to have practiced medicine right one year than forty years wrong."

Opinion, the number of years a man has practiced, the years he has lived, the number of stomach aches he has had

and so on, do not make him an expert in the field. The facts are ascertainable now in public health, and the man who can find out those facts is the man upon whom decision must rest.

You cannot compromise in this field with success, you cannot legislate in this field with success, unless you make facts the basis of the legislation. For instance, you remember here in California a while ago, there was a bill introduced legislating and telling the cow what her symptoms should be if she had tuberculosis. Now, that was a very difficult thing to convey to the cow or to the tubercle bacillus. You could get it through the legislature, the Governor might even sign it, it might even be printed, but you could not get the facts regarding tuberculosis in that way either to the cow, or to the tubercle bacillus, or to the public. Things are themselves so, or they are not so, and our success in this field depends upon whether we get in harmony with the things that are so, not with the opinions of somebody, but with the things that are so.

We have now, since about 1870, developed an entirely new series of facts and new methods of thought in the field of public health. With the microscope, with the test-tube of the chemist, with the research work that has been going on, we have gone into the field of bacteriology, and we know just as much about the appearance and habits and conduct of the tubercle bacillus as we do about the radish or the lima bean. In fact, we know more, because we have worked on it harder, and it has been more important. We have made classifications of these organisms that cause disease. The distinctions between them is just as great as is the distinction between the radish and the lima bean. We know the kind of soil in which they will grow, we know

how to kill them off after they start, we know what they do in that soil, we know the poisons they generate, we know what those poisons do, we know how the seed goes from one person to another that grows this organism, and thus how the germ is passed on. We know all these facts perfectly well, and yet our community has men in it who go by opinion, by prejudice, and who deny the fact of the existence of such things. We have, as the Bible says, eyes that see not and ears that hear not. We have people the same way. They have eyes, we can see them and we know that, and yet they can't, or won't see. And we perceive that they have ears, and yet they do not hear. They are people who deny the evidence of their senses, who can not make these distinctions and who say that these organisms do not exist. They do not say that about radishes or turnips or white rabbits, things of that kind, because they seem to come within their mental domain. They appear in the world of public health and in opposition, because they have not the knowledge, do not understand the methods, and will not try to learn, or because they have prejudices. Every one of you who has dealt with municipal problems knows how difficult it is to meet that kind of a mind. I call it a snow-roof type of mind. You know what the snow roof is, for you have seen it in the Sierras. It is built to a sharp peak, so that it sheds everything that comes to it. (Laughter.) And it takes a very large quantity of snow from a very large fir bough to break into a roof of that kind. And part of your problem is to do just that sort of thing, and break through.

Now let us look at this question of public health from the standpoint of its significance to us as social animals, living together. The world is no larger than it was in the time of Columbus.

In fact, it is a great deal smaller, from the standpoint of the human being because he can move over it so much faster. The human race has multiplied very rapidly. Human beings have gotten together in larger and larger cities. We know from prehistoric works, we know from the writings of great writers, that the human race has gone through some very great vicissitudes, and that many of the communities that were built up in the past have succumbed. We find records showing what they had in Central America in the way of great architectural productions and real communities. There is nobody to tell us anything about them now—they are all gone. And why? The mosquito came and spread yellow fever and malaria and wiped them all out. And, too, we have seen the Aztec remains down through our Southern States. Those people all disappeared. Where did they go? We know that there was a great Indian population here in California. One of the old visitors here in the 1830's found Indians by the thousands all through the Sacramento and San Joaquin Valleys. A few years later, when he came back, they were gone—smallpox, measles and malaria, introduced from Central America, had largely wiped them out.

And the same thing is true, of course, in Europe and Asia. We know what happened to great cities by the score. They went. Why? People failed to learn the rules of community life. They failed to lay the basis for prolonged community life. Part of it was the result of war. But war alone did not destroy the Roman Empire—the mosquito played its part and helped to destroy the Roman Empire by biting the people and giving them forms of malaria brought from neighboring countries. They had war and war and war for hundreds of years. But the thing that got the Roman Empire was

the mosquito. And it may get us right here in California.

What are these community problems that we all meet, as social animals, just the same as the bees or the wasps or any of the social insects? In the first place, we have to see that we have food supply and housing. We are animals. We have to have food every day in the year. We can not live long periods without food. Again, as we are animals, we have to maintain our body temperature, because that is an essential, and we have had to develop some method of protection from temperature changes—we have to have clothing, housing, and so forth. As protected human beings, we, particularly those of us of the white race, who have gone towards the north pole more and more and live in the temperate zones, where our best development is possible, have done so because we were able to grow and store food supplies and because we have learned how to put on and off clothing with the seasonal changes.

Yesterday in San Francisco there was a group of cotton men on their way from England to Australia, to develop the growth of cotton in Australia, because cotton is an absolute essential to the human race. Why were they going? They were going because a beetle is multiplying in the Southern States, and it is cutting down the cotton crop by stinging the boll of the cotton plant. So far we have not been smart enough to kill off the boll-weevil. It is cutting down one of our great industries, just the same as the mosquito attacked the Roman citizens and broke up the Roman Empire. Now, scientists tell us how we can overcome that boll-weevil, but it takes a great community campaign. If the growers in great districts of the United States would agree not to raise cotton for one or two years, the boll-weevil would die out. The emergency is not great enough yet to bring

that kind of community response.

So the world is juggling its food and clothing supplies. It is constantly trying to see what it can do to get the best distribution. We have been feeding the starving people of Russia, we have had these great relief campaigns, all because of a failure to maintain production, storage and distribution. Food supply depends primarily upon one thing, and that is this green coloring we see out here in the grass, chlorophyl. It all comes from that. Cows eat the grass and as a product of the cow we have butter and beef-steaks and we eat them. And that element does not work except when the sun shines on it, so you have to have sunshine with water to develop starch, to develop sugar, to develop other things that are essential to human life. The thing that makes the warm woolen clothing on your back comes from chlorophyl—the sheep could not grow wool without first eating the vegetation that contains it and its products.

So our food supply problem is all the result of an effort to control this chlorophyl. Our agricultural schools are all built upon the proposition of how to control it and make the best use of it for human beings. It has become a great world problem because the tropical sun works more intensely than does our sun in the temperate zones. That is why cocoanut oil is being sold here in San Francisco and in Wisconsin and at such a low rate that it competes with the cream made from our alfalfa and the Wisconsin silage, and on a basis that is driving the dairy cow out of certain fields, making ice cream and so on. So legislation to keep that fat, a fat made by the tropical sun working on the cocoanut palm, out of the ice cream of Wisconsin and that of California is being agitated. The whole thing hangs together. The world is so small that these problems of Australia

and the Orient affect us here in the United States and in California.

As a matter of fact, here is the most essential of our community problems, and, as you know, the relationship of nutrition, of proper foods, and so on to the human being, is one of the most essential things in the matter of public health.

Next in importance to food supply and housing is perhaps, we may say, government, some kind of order, so that we can live together. We have worked it out in a good many ways, some bad and some good. But we must have it. There has to be a certain amount of order or communities cannot exist, social animals cannot live together. Then we have to work out some method of protection for our communities against possible enemies. We have exaggerated this in some directions. But the community that can protect itself from its enemies is the one that has reached a greatly to be desired goal. But what is the object of food supply, housing, protection, government, if you haven't health for the individual, sound community health? In other words, all of these things are to make it possible to have a normally healthy social unit or social man. So that I think we can say, without any possibility of anyone disputing it, that public health, the health of the community, is the primary thing. If the housing is wrong, the health conditions are bad. If the food is wrong, the health is bad. If the protection is wrong or inadequate or misjudged or exaggerated the health is bad, because we hamper the normal life of our citizens. They may go to war and come back damaged. If the government is bad, or the influences behind it are wrong, men do not live according to natural laws that have been laid down in the natural processes of biology, and the health is bad again. And if the physical health

is bad, then the mental health is sure to be bad, and, going a step further, when we get bad mental health, we get bad government, and countries go where Russia has gone.

So we have got to get back to this problem, that our great responsibility here goes right to this point: We must have the human individual sound; the conditions for him as a biological unit must be right; and we must see that we are able to handle the subject so that we can get certain things in our community health; we must educate the citizen so that he knows how to live and how to take part in the community activities. We must have him fitted out with a certain amount of discipline, so that he fits in and is not a constant source of annoyance to the rest of us.

That means that we must have education and discipline—discipline is an essential, if we would avoid waste effort, bad habits, and things of that sort. And the human being must know how to do things and have the physical ability, and the health, to be able to do something, if he is going to be anybody in the community. Then, too, he must have ideals of service, of living a life worth while, if he is going to get anywhere himself, or if he is going to add anything to the community.

You can't separate these things. They all tie together. You can't take up any problem in the community that is of any consequence without viewing it from the standpoint of the living human unit, with certain definite characteristics and with certain definite responsibilities to his body. You think of the automobile as a complicated piece of apparatus. Why, the automobile is so simple compared to the human body that it is simplicity itself. Why, even I can understand an automobile. I have studied the human body for thirty

years. Its mysteries in many ways are very great. But I know a great many facts about it, and the world knows a great many more. Yet I know men who have never studied the human body, never seen the inside of it, never dissected it, who don't know anything about its rules or its laws, but they can tell you positively what to do for it when something is wrong. They know exactly what to do, where to rub it, where to look at it, and so on. I confess I cannot understand that kind of an attitude. But I do recognize the significance of the title of a book that was written some years ago called "The Valor of Ignorance."

Now, the processes that go on in the human body which we call disease are among the oldest facts known to man. The history of those diseases is of the greatest interest. The world has become an economic world, and the significance of these diseases from the economic standpoint has become very great. We spend a great deal of time debating whether a man shall work eight hours or ten, whether he shall do this or do that, passing laws upon this subject and that. But if he is sick and can't work at all, we do have something to worry about. Or if he is half sick and does fifty per cent work, there is something there to think about. In fact, the whole economic thought of the world has suddenly come to a realization that we are carrying an enormous and unnecessarily great burden of sickness in our economic world, that at the basis of all production is a unit, that that unit is a human animal, and that that human animal must live under certain laws, that he has great possibilities, just as the slave had great possibilities. We can work him up to a certain limit. But no one ever dreamed of working slaves without feeding them, because the slave owners viewed the slave the

same way that they view the animals on the farm, and they realized that there were certain rules that had to be carried out. And, as we have come on in the economic field, we have found out there are certain rules we must adopt if we are going to get the best or even fair results with our economic unit.

Just stop a moment, and let me read from the summary of the report of the committee on the elimination of the waste in industry, which was made to the Affiliated American Engineering Societies recently. This will give you an idea of what ill health means in our industrial community. It is there said:

"A report on national vitality, prepared in 1909 for the National Conservation Commission, appointed by President Roosevelt, estimated that there were then about three million seriously ill at all times in the United States. This meant an annual average loss per person of thirteen days owing to illness. It was estimated that forty-two per cent of this illness was preventable, and that such prevention would extend the average life by over fifteen years.

"Since that report was issued, an evident reduction in illness has been accomplished; so that to-day an estimate of between eight and nine days is probably near the fact"—we are getting some results from knowing the facts in public health.

"In discussing public health conditions, there is no clear distinction between the standing of the forty-two million persons classed as gainfully employed in the United States and those specifically engaged in industry. The forty-two million men and women gainfully employed probably lose on an average more than eight days each annually from illness disabilities, including non-industrial accidents."

Just think of that, eight days each! "Of the five hundred thousand workers who die each year, it is probable that the death of at least one-half is postponable by proper medical supervision, periodic medical examination, health education, and community hygiene.

"Assuming that the average life has, aside from all spiritual and human values, an economic value to industry of not less than \$5,000—and assuming that the special diet, care and medical attention required by a man chronically ill costs \$3.00 per day, it has been estimated that the economic loss from preventable disease and death is \$1,800,000,000 among those classed as gainfully employed"—the sixty-two plus millions of old women and men and children under age and so on are not included here—you can get an idea from that of the extent of this problem.

"The preceding figures are derived from studies of individual groups, from insurance experience, from census records, from draft records," and so on.

Now, as to one or two diseases, it is here said:

"Tuberculosis is the most important disease among industrial workers, two or three deaths per thousand per annum occurring at the working ages. It is estimated that three per cent of the wage earners, or about 1,250,000 lives, are affected. The economic loss from tuberculosis death rate as affecting the working population is \$500,000,000 annually. Pneumonia, influenza and typhoid fever are the most important communicable diseases among adults. Influenza and pneumonia, in non-epidemic years, take about 35,000 lives in the working ages, and account for at least 350,000 cases of illness. Typhoid fills close to 150,000 sick beds annually and takes 15,000 lives, mostly in the working ages."

And you know, you men of com-

munity responsibility, that typhoid fever is simply due to the fact that we have made a failure of our community life, and that we get back into our food and into our water the discharges of our citizens, so that it is a complete failure, an inability on our part, to follow out the rules in regard to the destruction of the discharges of the body, so that they do not get back into our water supply and our food supply. Think what that costs us, a thing we know all about and know exactly how to do away with. The facts are as clear as anything in the world, and yet, as it is stated, 150,000 sick beds are filled because of the inability and short-sightedness of our people. Up here in one of our California cities the filter bed was not working very well, water was pumped right out of the river, and a typhoid epidemic occurred. The rule was broken. These rules are just as inexorable as death. You can't change them in the least. The typhoid germ goes about its business and grows in the human body, when it gets the chance. We know perfectly well how to keep it out, but we fail to do it.

The article goes on to say:

"In a large industrial area, hookworm infection was present among at least five per cent of the laboring population.

"Malaria is so seldom a direct cause of death, that it is difficult to estimate its extent and influence. It is responsible for much sub-standard health, and probably affects 1,500,000 people annually, covering 27,000,000 days absence.

"It may be roughly estimated that 1,500,000 workers are affected with venereal disease. Judging by the draft figures, 5.6 per cent would be an outside estimate for ages 21 to 31 in the general mixed population, white and colored, for all venereal infections. It has been

estimated that about 60 per cent of the infection occurs in this age period. Another study, it should be said, found less than one per cent of syphilis in industry and three per cent in mixed population. The Mayo Clinic found 4.6 per cent of syphilis in mixed classes and ten per cent among railway men.

"There are more than six million workers with organic diseases resulting mostly from infection."

And we find this:

"Defective vision and defective teeth: Special attention has been given in recent years to the question of defective vision and of defective teeth. It is estimated that 25,000,000 workers have defective vision requiring correction."

That means such an enormous drain upon the individual, and when I say upon the individual, it is upon us. For we carry the burden of the sick. Everybody that has a reserve, financial or physical, must put it in to carry the great burden of the insane, the weak, the syphilitic. We all have to put in our share. We put too much into carrying the burden, and too little into trying to reduce it. We could reduce it if we would go at the problem with these essential things before us. And it is a public as well as an individual duty to reduce the size of the terrible burden that we all must carry in connection with our lack of proper attention to the public health. (Applause.)

I could go on and discuss the problem of accidents, safety first methods, surgery and industry, and all of those various other measures that are of such great importance. But I want you, just as community men, with community responsibilities, to stop and think in terms of your duty and responsibility in connection with the one most valuable asset in our civilization, and that is the child—the child of to-day. The

health of that child is the greatest asset of the nation. So that the health of the school child and the education of the school child are the most important things before you as public officials. If you save on the schools, if you save on the health of the child, you may not live to pay for it, but that child will have to pay for it. You have not given the child proper service. You have got to figure in terms of what that child will be when twenty or thirty years have rolled by. Will that child be in the insane asylum? Will it be a worthless bum, because infected with venereal disease? Will it be a cripple, because it has had diphtheritic paraly is? Or will that child be sound, wholesome, a good citizen, working and trying to advance the welfare of the community?

That is your problem, you have got to make the living conditions right for that child, just as you make them right for the colt or the calf in your control. There is no other way out. We know how it should be done. We know much better how to do it than perhaps they did some years ago—the grandmothers do not have quite as large a part now in raising children as they used to. If you have any children and there is a grandmother in the house or about, you know what I am talking about. The point is this: That the grandmother brought over the ideas of the past, based on opinion, the death rate of infants was very high. We don't depend on the grandmother in raising children now, any more than we can depend on the grandmother in our communities to give us the rules for well being and our government. Just experience is not enough; facts are the things that are going to count. And we have found that out. Although some husky little fellow might have gotten through babyhood in spite of the things given him, that does not mean that his particular food is the thing that all children should

be raised on. We have got to rule certain things out. We have found out, for instance, that certain vitamins are necessary for the development of the child. They go into most food. But now that we have had to turn to the dairy cow and the goat, the safety and the growth of our children depends on the condition of the animal herds. Because of the failure of mother's milk, we have to face the fact that we can't get growth and health unless cows and goats support our children in the first years of their lives. When the children were fed from their mothers' breasts, that was one thing. But, as we have got away from that, and depend upon the milk of the dairy cow and the goat, it become vitally essential to see that the milk supply of each community is absolutely dependable and safe for children to take. If you feed your child poison along with the milk in the first year of his life, if you feed that child portions of the excrement of horses and cows, because you do not take care to see that the surroundings of your cows are clean, if you let typhoid fever or tuberculosis come into your home in that way, and it is being done, you cut the human race off at its beginning. And that is precisely what we are up against in this civilization. Your health officer has got to see right at the start that the right things are done. He can't let things go by chance, because these other things go by rules, and the rules win unless we know them and live according to them.

So you can start in with the health of the public, and you can work right up through your community responsibilities, and you can see that you must look upon the growing child as a human unit that must have education to know how to do things, must have health to be able to do them, must have discipline to avoid waste and all that sort of thing, and must have ideals to be of

service. And you can get all those things for the community, if you put the brains in it and the thought and the willingness to meet things exactly as they are.

We can look back and we can see that we have failed to do many things. Look at our war experience. We start out, we go to war, and as nations have always done, we call on the young males to go out and do our fighting for us. They are the huskies, they are the ones with the most energy, and we say to them, "You go out and fight for us. We are going to stay at home, but we draft you young fellows to go out and fight." Then what do we find out? We find out that four hundred out of every thousand of the best blood that we had of these young men are culls, defectives, and that they cannot go out and fight. That was the experience—they had something the matter with them. And we found that a large percentage of the things they had the matter with them were our fault, and we could have stopped them. Just stop and think what that means. We are interested in county fairs, studying the size of bulls and looking out for the condition of our swine and all that sort of thing; but here we were, four out of ten of our young men physically unable to take a gun and go out and fight for us. What have we done? We have let syphilis, tuberculosis, and all that sort of thing get into the germ plasm that made up some of these boys, and they were mentally defective, they had poor bodies. We know that that is partly our fault, because we can go to Kansas, where they have had prohibition and gotten away from the curse of alcohol all these years, and there the defective rate was only half as great. It was a better place to raise young boys up to be worth while, where there was no liquor and no saloons to degenerate the race. You may be dries or wets, but

you have got to face the fact in that connection just as you do in other economic directions.

What are we going to do about it? Are we going to let these conditions go on? Are we going to drift along, or are we going to take advantage of the great fund of information that has been developed and begin to guide our communities so that they can get the benefit of it?

There are a lot of things in this world that we can get one hundred per cent on. We take in twenty-five hundred students at this university, and we give them an examination, or a series of examinations. They vary in the results of those examinations. There will be a few that get one hundred per cent—very few. Some will get 98, a few 97, and a lot will group around 80 and 85, while some will be below the passing mark. That is the thing that happens everywhere in the human realm. Some of the communities will handle this problem well, and some will fall down. You have got to recognize that. That is a human thing. You don't get absolutely perfect results in human affairs. You must not judge these things by what one man says or what one man has done. You must not judge the whole public health matter because of one thing that has gone wrong, or one doctor's error. You must go by averages and by the way that things go when they go right. And you will find out, as the United States Government found out when it took up the Panama Canal, that if you follow the law of averages, you will get the results. We know what happened in the canal zone. The French had all the money they wanted to do the work and had the best brains of Europe for the job. They went down to dig the Panama Canal, and had a good place to dig it but they failed, lost their money and had to get out. Why? Because they did not calculate on the

mosquito, and they did not calculate on a pure water and food supply. We waited a few years and had learned something about the fact that mosquitoes carry yellow fever and malaria. We found out how to control cholera, we found out how to control typhoid. We sent General Goethals down there, and he simply served notice on all the mosquitoes and all the flies and all the germs along in that zone, "You get out of here. We are going to build the canal." And he got them out, and, for one cent per capita per day for health purposes he not only made it possible to build the canal, but he made that zone the healthiest place in the world, right there in the tropics.

That is what we must face. The tropics can be made healthy places in which to live. Not now. I told you a while ago that the chlorophyl of the tropics had more sunshine, so that it could more than compete with us to-day in that respect. With adequate public health measures, enforced, the tropics are going to be populated, and we are going to have to meet that competition, the competition of the food supply of the tropics. We have to learn that our most important problems are problems concerning the public health. The world is in a great turmoil. Europe has had its standard of living pulled down. Ours is the highest standard in the world. We have inherited a great continent and had great margins. But we must realize that the problem of our returned soldier to-day is much more complicated than it was after the civil war, when we had the great territories at our command practically uninhabited. That applies to all life. Our margins as an economic nation have been reduced. The necessity for meeting these problems has been increased. We have to be intelligent about it, whether we want to or not. We must meet it, if we are to win out.

Now, great success has been made

along the line of public health. People live longer than they used to, because we have learned what some of the rules are. More babies live. In this country we live twenty years longer than we did in George Washington's time. And that is because we have learned the methods of death, so to speak, and we have learned how to avoid them. So we are making great and unusual progress. But along with that progress, and at the forefront of that progress stands the group of men in connection with our great institutions, our universities that are studying all the time to find out new things about these fields, to put light in the dark places. And we find here one of the most remarkable phenomena in human nature. Here we have made all this progress, so that we are able to go out into the San Joaquin Valley and set up a community which can grow to two thousand people at the end of two years. We can make it safe, we can get rid of flies and mosquitoes, we can make the water safe to drink, bring in good food—we have learned all the rules. We can keep smallpox out, if we want to, we can dodge cholera and all other things that we might have expected in years gone by. We have found out what to do by steady experimentation in our universities and our laboratories, because we have about the best brains in the community there. And yet we suddenly find rising in our communities a group of people who say, "Why, you can take and castrate or caponize animals any time you like, simply to make the flesh taste a little better, but you can't do anything to an animal, even under an anaesthetic, that is for the advance of medicine." That is this anti-vivisection measure. Can you think of anything in the world more ridiculous, more sublimely ridiculous than that? Just to make a thing more palatable, to make the beef-steak a

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The Boulder Canyon Project

An Address Delivered Before

The League of California Municipalities, Stanford University, California
Thursday, September 21, 1922

—BY—

E. F. SCATTERGOOD, of Los Angeles

Mr. President and Gentlemen of the League of California Municipalities: Two years ago I had the privilege of addressing you at Chico, and saluting you in the name of the city of Los Angeles, as it were, regarding economic conditions affecting the hydro-electric project of that city. To-day it has been suggested that I talk regarding the Boulder Canyon project. I don't know in whose name to salute you, except in that of the whole southwest, of which we are all a part, because the whole southwest is interested in it. It is proposed to construct a dam in the Colorado River, at or near Boulder Canyon, to enable the storage at that point of an immense quantity of water, sufficient in capacity to impound something like a one-and-half years' average flow of the river; thereby to control the floods of the river, and conserve the water. The primary purpose is to control floods and avoid the disastrous results of an inundation to irrigation districts situated below in California and in Arizona. The most important districts jeopardized by those floods are the Yuma district, which was created by the United States Reclamation Service on the Arizona side near Yuma, and the Imperial Valley, that great California empire, the destruction of which would be more disastrous than any one can imagine. Palo Verde Valley, on the California side, has suffered tremendously in proportion to its size. There are many opportunities for irrigation along the river in the southern end of Nevada

where the river turns, also in California and Arizona.

The second purpose is to conserve those waters, which are otherwise destructive in their character and make possible further irrigation. Instead of approximately a half million acres of land now irrigated, it is possible to irrigate a million and a half acres of land in this country, directly from the river, by what would be practically a gravity flow, but with some lift in pumping over some parts of the area.

The third important purpose incidental to the others, is generally spoken of as the development of hydro-electric power, which is made possible from backing up the water in the river and creating a head or drop by virtue of the height of the water in the reservoir. You understand, of course, that the lower part of any reservoir is small in capacity as compared with the upper levels, because the area is so much greater on the surface. So that out of 550 feet of maximum depth, 350 feet of it may be maintained permanently without much loss, comparatively, in the capacity of the reservoir, thus assuring a permanent head for the development of powers, at least to that amount.

The Canyon project, as it is sometimes called, may result in the construction of a dam in Boulder Canyon or one some forty miles further down in the Black Canyon. In either event, it would be practically the same project, with the same storage reservoir utilized

in either case. The canyon of the river between those two points would not afford the main part of the storage, as that lies in a broad expanse spreading out of the river valley just above Boulder Canyon.

The magnitude of this project is of great interest, and it may be compared to others as to height of dam and capacity of reservoir. The highest dams now existing range from two hundred and fifty to three hundred and fifty feet, and there are but few of them of such a height. The Arrow Rock, constructed by our reclamation service, is 349 feet above bed rock, some portion of that height being below the bed of the river, down to the rock. The Boulder Canyon project as contemplated, would have a dam rising six hundred feet above bed rock, perhaps fifty feet of that being below the level of the water. The comparison you can readily make.

The capacity of the great reservoir in Egypt is one million eight hundred and sixty-five thousand acre feet. The capacity of the Elephant Butte Reservoir in Mexico, constructed by our Reclamation Service is 2,365,000 acre feet. An acre foot, as you of course all understand, is the amount of water that would cover one acre one foot deep. Therefore one hundred acre feet would be one hundred feet deep on that one acre as a base. The Gatun Lake, on the Panama Canal, a tremendous reservoir called a lake, built largely for the purpose of forming a considerable length of the canal, has a capacity of 4,410,000 acre feet. The proposed Boulder Creek Canyon project would have a capacity of not less than 24,000,000 acre feet. So that it is six times that of the Gatun Lake; in fact it might perhaps reach 30,000,000 acre feet, depending upon the final economic studies. So that the proposed project has a height of dam double that of existing dams, and a

capacity six or seven times greater than even the Gatun Lake.

The inception of this project, that is, officially, arose out of the action of Congress in ordering the Secretary of the Interior to investigate the Colorado River with a view to protecting the Imperial Valley. The settlers in the valley were threatened with disaster, and had appealed to Congress for protection. The investigation extended over a period of about two years. In the meantime, the Reclamation Service gathered a great deal of information from time to time regarding the Colorado River. The investigation resulted in the recommendation of the storage at this site, which is on what is termed the lower part of the Colorado River.

Now there are storage sites on the upper river in Utah, Wyoming and Colorado, but to a much lesser degree. Those storage sites, at least many of them, will be utilized. They are of great magnitude as compared with storage sites as we now know them of a half million to two or three million acre feet. They will be utilized for the development of power in Utah and Colorado, and the upper states nearby; also to some extent for irrigation.

The next storage site on the river is in what is termed Glenn Canyon, of which you have no doubt heard a good deal. Glenn Canyon lies in southern Utah, with the lower end of it in northern Arizona. The dam site, to create that reservoir, which is measurable in its magnitude with the Boulder Canyon Reservoir as proposed, would be in northern Arizona near Lee's Ferry. The site below at Boulder Canyon was selected by our government after a thorough investigation for the reason that it would control all of the flood except the Gila. The Gila offers the lowest possible site of any magnitude. It controls a good deal more of the

flood than any of the further-up sites. Moreover it would control the silt of the river, which is of great importance with respect to irrigation. It is also important with respect to power development, being destructive of waterways, and expensive to get rid of. It also has the advantage of being closest to the point at which the water would be used, and therefore possible to regulate it in conformity with demand, which, by the way, depends on variation in the season during the summer, spring and fall. It could be easier regulated to avoid waste, which would be much greater if it were attempted to control the river at a point indicating a ten days' or two weeks' flow further up. In addition to that it has the great advantage of taking care of irrigation altogether, allowing power development at those important sites above. There are five or six other sites as important as Boulder Canyon that may be developed at some time in the future, independent of irrigation.

All the power people know what a relief it would be to them if they could control the water regardless of irrigation. They could use it to much better advantage from the standpoint of power, or at very much less cost. All those important power sites could be operated independently of power if we have this large reservoir below.

There are great quantities of silt going down the Colorado River. The Boulder Canyon project would take care of it for several years without trouble to irrigation or power. And as the capacity of the reservoir becomes less, the development of the upper reservoirs would compensate for the loss in capacity here.

The support of the project, which is a government project primarily, has been the community of the southwest, together with southern California, Arizona and

southern Nevada, these communities being most directly, but not solely, interested. Congress has now before it a bill providing for this project, recognizing it and legalizing it in every way, as well as providing for the commencing of the dam itself and also of a canal in Imperial Valley. The canal is not a part of the reservoir project or required for flood control, but is necessary to the further utilization of the Colorado River waters for irrigation. When the United States Reclamation Service built the Laguna dam just above Yuma to divert the water of the river for the Yuma project in Arizona, they entered into a contract with the Imperial Valley district, that that dam should also be utilized to divert water for Imperial and Coachilla Valleys. That contract has been lived up to, in that the Imperial Valley has paid its assessment, amounting to considerable money from time to time. In order to benefit by it, a high line canal must be constructed. At present the water for Imperial Valley is diverted down further south, near the line of Mexico, and it goes through the foreign country of Mexico before going into their district. The farmers of Imperial Valley are required to maintain that, spend something like a quarter of a million dollars every year to reconstruct the diversion works which they must blow out after it is used, so as to prevent it backing the water and destroying the Imperial project in Arizona by the flood, and another half million or so in general maintenance work. The lands in Mexico benefit by it with very little charge, but no direct assessment. These farmers are even obliged to pay duty on materials which they take down there to maintain that canal, notwithstanding the fact that it is maintained for Mexico as well as the United States. Moreover, the officials down there inter-

ferre with them continually and oftentimes delay them in time of emergency. So it would be a popular American move to have a canal on American soil, as well as to make it possible to divert the water at the Laguna dam and avoid that enormous expense of reconstructing the diversion works every year. In the bill before Congress there is a provision for building the main part of that canal and have the cost repaid by the lands. The bill contemplates that the funds for constructing the Boulder Canyon dam should be paid back solely from electric power. Electric power can well afford to pay it. The demand for electric power is such as to assure its repayment. Consequently the government is simply extending its credit to bring about the accomplishment of this great project, while on the Mississippi River, for example, the government is spending millions and millions for flood control, with no thought of ever getting a dollar back. In this case they are providing that the money shall be paid back by those interested and those who will receive the benefits.

The Imperial and Coachilla Valleys down there have some sixty-five thousand inhabitants. By more than doubling up the amount of cultivable lands, you can see what it means in homes as well as products for the benefit of our country.

Aside from the flood protection, electric power, amounting to 600,000 horse-power, continuous, reliable power, wet years and dry, winter and summer, or an equivalent of 900,000 horse-power plant capacity, will result—because you can't sell power on an average equal to your plant capacity. In other words, in magnitude, to compare it with others, you would compare it with 900,000 horse-power of hydro-electric plants as generally constructed in these days below reservoirs.

The power is very important for irri-

gation. The possibilities of irrigation through pumping in Arizona and California from cheap power are very great; and the districts that would come in as the result of possibility of cheap power for pumping would be quite equal to those that would come in from direct irrigation from the Colorado as the result of conserving those waters. Cheap power in the southwest means the development of industry and agriculture through pumping; it means the development of mining, which cannot now be developed because of cost. The mining districts of Arizona are needing badly from seventy-five thousand to one hundred thousand horse-power, and are ready to take it and be responsible for it, and are urging its prompt delivery.

Now, with the relation of this project to California. I understand there is much said about that, and therefore I will speak of it briefly. Putting power into the transmission lines of California, as they are and as there will be five, six, eight, and ten years from now, as they are now going, at one end of the state, is like the transfusion of blood—the recipient gets a half pint of blood, and it is in the whole system, whether it goes in at one extremity or another, and the whole system profits by it. The analogy may not be perfect, but economically it produces that condition. At present large quantities of power are going south, with transmission distances as great as the distance from the Colorado River to southern California points, and southern California is seeking further, and of necessity must seek further power from the Sierra Nevadas to supply its increasing needs. It is true there are large quantities of potential power in the Sierra Nevadas, far in excess of the amount now being developed. But the Boulder Canyon project is necessary (and every other Colorado River project will later be

necessary) and exceedingly desirable. It is desirable now, economically, because that power can be delivered in southern California more cheaply than power can be taken down from above, and when that is done, the people further north, who do not want power taken to southern California from above, will have that power available to themselves. Secondly, the effect of it on the state as a whole would be to lessen the cost of power in California throughout the state. It means the bringing in and putting into the pot of a large amount of very cheap power, and some of the corporations are doing business all the way up to Fresno and down to San Diego, so that you can see how far those lines would naturally distribute. Colorado River power from Boulder Canyon or Black Canyon could be delivered right into the San Joaquin Valley quite as economically and properly as to the city of Los Angeles or San Diego—or the greater part of southern California. The price for wholesale power in the state is, and inevitably must be, governed largely by the average cost. And as the natural lines of transmission are now and are becoming more and more complete throughout the state, the effect will be more and more a single supply with the cost of production averaged up.

There is every reason, then, why the whole state is interested in the Colorado River development. It makes power more plentiful, and it will make it cheaper in the whole state. And it will avoid, too, any possibility of a growing feeling about one part of the state taking power away from another part of the state.

Now with relation to the Boulder Canyon project to the Water and Power Act. I speak of it because discussion on the Water and Power Act is affecting to a degree the Boulder Canyon project.

I may draw a comparison here. The two, the Boulder Canyon project and the Water and Power Act, are interdependent one upon the other—they are not tandem, they are parallel propositions, in a sense. There may be in a city workers looking after the economic welfare of the people, and in that same city workers looking after social reform. Those two go together for the good of the people of that city, parallel, side by side; but they help one another incidentally to a very material degree, are interlaced and interlocked, but neither dependent on the other and neither essential to the other. The Colorado River project would cost, with 900,000 horse-power installed and transmitted and delivered at central distributing points in Arizona, southern Nevada and California, perhaps \$50,000,000 for the dam, which is the outside figure, considered by the Reclamation Service at the present time, as plant, and \$90 a horse-power, or \$80,000,000 approximately, or a total of \$130,000,000 or \$135,000,000. Of course, that total investment would not be required until 900,000,000 horsepower is absorbed, because the power plant capacity would not be put in except as it is needed from time to time. At first it would be more like \$95,000,000 or \$90,000,000, with half of the power developed. That expense belongs some to Arizona, some to southern Nevada, and the rest to California. In California there are cities like Los Angeles and a number of others that are perfectly competent to do their own financing, and big enough in their enterprises to economically bring power to themselves. The districts and the smaller municipalities would benefit by the Water and Power Act, and in proportion as they were given power from the Boulder Canyon project, there would be a call on the \$500,000,000 for funds, and those com-

munities could more beneficially and more readily profit by the Boulder Canyon project in that way than if they were forced to join together or otherwise get the power.

So you can see that the amount of money that would be called upon from this \$500,000,000 in connection with that project would be perhaps one-tenth, or, under any circumstances, inside of one-fifth of the total when the project is completed. The statements that the Boulder Canyon project would absorb all of that and that northern California would have nothing of the \$500,000,000 left for its benefit, are concocted falsehoods, inspired by selfish interests, and so far from the truth as to be utterly absurd. And that Los Angeles is interested in it particularly is more absurd, because it is perfectly competent to do its own financing, as is any big city that is properly managed.

The two propositions are also parallel in that they are both opposed by private interests in California, and they are using the one against the other, according as it may be convenient. We don't want to be misled by those things. Water and hydro-electric power in the southwest, which is interested in the project at Boulder Canyon are vital, they are fundamental. A large increase in our modern day civilization must be based on water and hydro-electric power in this semi-arid country of the southwest and limited in high cost of fuel. In the east people can buy their coal and be independent of utilities like hydro-electric power or electric power generated by coal: if they don't like the price, or there is a shortage, they don't have to suffer. In the west, an industry is wholly and absolutely dependent on these things directly. The utility of water in the east for industrial purposes is hardly known—you can get it out of the ground anywhere.

And as for farming, they don't have to get it at all.

These enterprises then, water and hydro-electric power, measure the possibility of the development in the southwest. They are locked up in our streams, and to possess the key to those streams is to control the destiny of the communities of this section of our country. Whether that control shall be for the benefit of the prosperity and happiness of all, or whether it shall be for the profit of a few, depends on the people of California and of Arizona.

Now, a state, as I look at it, and a state like California, is an association of people for their mutual protection and mutual benefit. And, having in mind something so fundamentally essential as water and hydro-electric power, something on which all private industry and enterprise depends, industrially and commercially, here in the southwest, it is not radicalism nor Bolshevism, it is just good common sense, that a municipality or a state should take an interest in it, as they are taking an interest in this Boulder Canyon project which is fundamentally a public project. However, the bill before Congress makes it possible for municipalities or districts or states to gain a right in that power, or for private corporations to gain a right in it. It gives the municipalities or states a preference or a first opportunity, if they want it. If they can't handle it themselves, then they can look to the private corporation to handle it for them temporarily or permanently as they like—it is up to the districts or community in that regard.

The city of Los Angeles, in the handling of its water and power project, is getting along very well. I will give you, just for a moment digressing, a few figures up to date as compared with those given two years ago at Chico.

As a matter of policy, taxes have been paid in connection with interest on water and power bonds. The property in Los Angeles has been trebled, more than trebled in value, because of these projects, and a great many people think that the consumer should not pay all the cost of maintaining idle capital in a future water supply, but that the property that is benefited and trebled or made more valuable by four or five times, because of that security resulting from the Los Angeles aqueduct and future water supply, should help out. However that may be, the present invested capital or value of those projects, water and power combined, is about \$8,000,000 in excess of the total debt against them, plus the total taxes that have ever been paid on them, an equity of \$8,000,000 in excess of what it has cost the people in that respect. In addition to that, it may be pointed out that at the present time there are no taxes whatever because of the city's water and power project, none on the power bonds; and the city is getting \$600,000 in water service, corresponding to the equivalent of the free service given to the city by that project annually. With a dollar tax limit, that makes possible getting that much more money for running the city government, which is desirable and necessary, and is equivalent to their being able to tax at a little higher rate than the dollar. At the recent primary election, the people voted to have the limit raised, which probably makes that situation unnecessary in the future. In effect, then, in the water and actually in the power, there is not a dollar of taxes on account of these projects of the city of Los Angeles. The people of Los Angeles are now paying at the rate of \$13,000,000 a year for their water and power service, that is, for general domestic, industrial and commercial uses and street lighting—

all except electric railways. At the rates being paid in San Francisco, they would be paying \$24,000,000 a year, approximately, or \$11,000,000 more. So they are saving the greater part of the total taxes they have ever paid, from the beginning of these projects, once a year in rates.

Now, if you go back and carry that back six or eight years, you will find a saving in rates of between \$40,000,000 and \$45,000,000, as compared with what they are paying in other places in California, or have been paying during that period. And their equity in the property, combined with that saving in rates, is three and a half times, roughly, between three and three and a half times, the total taxes that they ever paid.

Now, that is just money, just dollars—that is not the measure of the value of these utilities. And I am speaking of this, to give you an idea of the measure of the value of the Boulder Creek project to Arizona and California and southern Nevada. The greatest measure of the value of those utilities is in the assurance that causes capital to come and invest here, and the development of the various communities of the state. Capital where it is directly dependent on the power and water utility, is not justified in coming to California and investing, and those wise heads back east will tell you so when they talk to you. Unless there is an assurance of a plentiful water and power supply, looking to the future, unless there are cheap rates and cheaper rates than there are mostly in California, the big industries will not come.

Then there is the question of stability in rates, whether those rates are staple, whether they are liable to go up. California has suffered tremendously because of shortage of power in name, in the eye of eastern capital—shortage of power

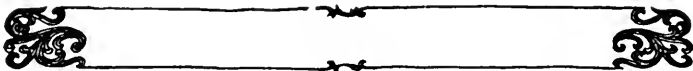
that has been experienced, and the hardship to industry resulting from upward rates, just when industry was staggering in an effort to hold its own, when the farmer could hardly sell his product, his rates going up. Stability of rate is essential. And if you compare the existing and needed development of power at this time, and analyze the demands of capital, you will find that you have got to have low rates as well as stable rates and that you have got to have an assured future water and power supply as well.

With this Boulder Canyon project and the Water and Power Act provision in effect all over California, you will see in the near future all over the state what is going on in Los Angeles now. Therein lies the sole difference between Los Angeles and the other portions of the state. And there isn't any question but what California throughout, the small districts, the large districts, the small municipality and the large, and Arizona, would realize that sort of thing, tremendous increases, twenty per cent a year more in industry, twenty per cent a year increase attained every year for the last six years in the use of electricity with those utilities assured.

Now I just have a minute in which to close. The Pacific offers opportunities in my mind (looking clear beyond all these local matters for a minute), so great, commercially, that no one need be envious of anyone else on the Pacific Coast. It is helpful to Los Angeles that San Francisco should grow commercially

and industrially. The possibilities are so great and unlimited that the more our products are seen, the more they will be known in the foreign markets, and the more market there will be. And it is our duty, every one of us, Seattle, Portland, San Francisco, Los Angeles, San Diego, to do everything we can to help one another, and to help ourselves to reach out and take advantage of that situation, not against one another, because the market is so unlimited, but in combination, because the more each one does, the more it helps the other. And it is against other nations that the competition comes in, and a successful competition must be based if we are going to accomplish anything here on the Pacific Coast on a solid community of interest. We must have industrial and commercial centers, making possible a foundation to credit in order to realize our ideals, our ends in trade. So I would say that we had better forget any jealousies, however they may be inspired, by selfish interests or otherwise, and not allow them to take root. Get busy and pull together as a state and as a Pacific Coast. And then we will have the smiling sun in the morning, you may say, with a responsive smile from a prosperous, thrifty, happy people, scattered throughout our valleys and our hills and surrounding our urban communities. And the setting sun may enlighten, may illumine, an emblem of freedom which stands for humanity in every part of the Pacific.

Thank you. (Great applause).



More Than a Quarter of a Century of Satisfactory Service With No Maintenance

Visalia, California, Laid Its First Asphaltic Concrete Pavement in 1894, and After Twenty-eight Years Chose the Same Type for the 1922 Program

For twenty-eight years Main street in Visalia has given satisfactory service under the ever-increasing load of traffic. Even taken by itself this record is notable; but when it is realized that during those twenty-eight years not a cent has been spent for the maintenance of this pavement, this becomes an excellent example of the durability of asphaltic concrete base and surface pavements.

Visalia, situated in the heart of the San Joaquin Valley, is one of California's pioneer settlements. It was founded about the middle of the nineteenth century, and was made the county seat of Tulare County in 1852. In 1874 it was incorporated as the City of Visalia.

In the days of '49, Visalia was the only town on the stage route between Stockton and Los Angeles, and served as a stopping place for stages. Its early history, like others of the older towns, is woven with the romance of the California pioneers.

It was decided in 1894 that the traffic of the day warranted the laying of permanent pavement on Main street. At that time paving was quite an event, and much consideration was given to types of construction. It was finally decided that an asphaltic concrete base with sheet asphalt surface should be laid, and the contract for paving from Locust street to Garden street, an area of 54,636 square feet, was awarded to John Worswick, one of the pioneer paving contractors of California. It

was also decided to pave in two courses—a five-inch base and a one-inch surface. Specifications were drawn for this type. The sand and gravel used were obtained in the vicinity.

The asphalt was furnished by the Standard Asphalt Company of California from its refinery at Asphalto, now McKittrick, where the crude asphalt was mined.

In the process of refining, the crude asphalt was fluxed or tempered by the addition of "liquid asphalt," a heavy crude asphaltic base oil from which the portion volatile above 300 degrees F. had been driven off. The resulting solid material had an asphalt content of about 95 per cent. To this product, at the paving plant, there was added more liquid asphalt to bring it to the desired consistency for paving work.

The satisfactory results of the program initiated in 1894 brought a demand for more paving, and in 1895 John Worswick was awarded another contract for paving 69,835 square feet. Part of this pavement was laid on Main street, and the remainder was laid on Court street from Center to Acequia street, and on Church street from Acequia to Oak street.

The Main street pavement was subjected to a very severe test in 1906. For three weeks the entire pavement was covered with water several inches deep due to the overflowing of Mill Creek, a stream running through the city. This occurrence was repeated several times



Main Street, Visalia, between Court and Church streets, looking east. Paved in 1894 with five-inch asphaltic concrete base and one-inch asphaltic concrete surface. Condition in 1922, excellent. Maintenance, nothing.

before 1910. Since an asphaltic concrete pavement is impervious to water, it did not allow softening or undermining of the subgrade, and consequently there have been no signs of deterioration from these severe tests.

The next paving done in Visalia was in 1910, when a total of 134,928 square feet of asphaltic concrete pavement was laid. This was laid in varying amounts on Acequia, Garden, N. Court and N. Locust streets. The Acequia street pavement, which has been down for twelve years, is another notable pavement. It consists of four-inch asphaltic concrete laid in one course, the mineral aggregate being of smooth river-run gravel. This pavement is a good example of the tenacity with which asphalt clings to the mineral aggregate, for wherever pieces of gravel were at the

surface, they have been held firm by the asphalt so that traffic has worn them flat.

In 1921, Visalia awarded contracts for the paving of 187,439 square feet with 4-inch asphaltic concrete base and a 1½-inch asphaltic concrete surface. This year contracts have been awarded for paving of 158,505 square feet of asphaltic concrete base and surface pavement. At the present time, Visalia has laid or contracted for 772,421 square feet of asphaltic concrete base and surface. Of this amount 283,002 square feet consists of four-inch asphaltic concrete laid in one course.

Visalia is a prosperous community, having an estimated population in 1918 of about seven thousand. It is the center of a peach, apricot, prune, grape and walnut producing section, and, like

several cities of the San Joaquin Valley, one of its principal industries is canning and packing fruits and vegetables. During the summer months the temperature frequently reaches 110 degrees, while during the winter months the thermometer registers as low as 26 degrees.

Main street, as its name implies, is the most important thoroughfare of the city. In addition to the normal traffic of a thriving city, it is called upon to carry a heavy traffic consisting of trucks and trailers laden with fruit and produce for the canneries and packing houses. The heavy traffic, the extreme temperature variations, and the floods have

been successfully met by this pavement during over a quarter of a century of service. The excellent condition of these wide, well-paved streets is responsible in no small measure for the favorable impression which Visalia always leaves with a visitor.

Honor is due to these early pioneers for their initiative in giving California a distinctive type of pavement, which is a monument to their wisdom, and has led the way to the adoption of this type of pavement in the Pacific Coast States, until at present there are 164,000,000 square feet of pavement of this type in existence in these states. (*Roadrunner*)

A Regulation of Fire Insurance

By

Mr. A. P. LANGE.

Mr. President and Ladies and Gentlemen: The city of Fresno is, as you know, very much in the public light on account of the large number of fires we have had there. In the last two years, the city has spent a great deal of money in improving its fire protection. When it came to recognition of that fact, we found a very remarkable condition of affairs, which we believe will interest the people of California generally.

Mr. Seavey remarked yesterday that some agreement had been made with or some promise had been made to the city of Sacramento, in the direction of reducing its fire insurance rates there, on account of improvements that they had made. I believe they will find in the course of time that their experience will be very much like ours in Fresno. In other words, they will have some difficulty in securing any recognition or the keeping of that promise.

We have found this in Fresno as the

result of our investigations; that there is absolutely no such thing as any control of any kind over fire insurance rates in California. It is different than in any other state in the nation in that respect, so far as we are able to find out. Almost every other state makes some provision, has some board or some commission or some means of regulating fire insurance rates. But that is not true in California.

Some efforts have been made to secure jurisdiction by the Railroad Commission, or some similar body, but all those efforts have failed.

I don't want to take up a great deal of your time with statistics, but I will sum it all up in a word, and say that the report of the Fire Commission of Fresno, a body serving without compensation of any kind, brings to light the fact that California, in the five years from 1916 to 1920 paid more than \$45,000,000 in excess fire insurance premiums. I don't

mean to say that they paid the fire insurance companies a profit of \$45,000,000, but there has been an excess to that extent. That is assured in this way: The companies have fixed the standard of the profits of their business. That standard has been agreed to by the National Association of Insurance Commissioners. And in California the companies have received all of that profit plus \$45,000,000. That is now running at the rate of about \$10,000,000 a year in excess profits.

You are perhaps familiar with the methods of making insurance rates in this state. The companies are in a compact, proper enough in its way, known as the Board of Fire Underwriters of the Pacific. That organization is neither recognized by law nor is it prohibited by law. It is perfectly right that the companies should cooperate in the making of insurance rates, but in so doing there should be some supervision to prevent that organization from becoming arbitrary. We haven't it.

The only thing I would like to have

you consider in this connection is just this: In the states of Arizona, Arkansas, Colorado, Georgia, Indiana, Kansas, Kentucky, Louisiana, Massachusetts, Michigan, Minnesota, Missouri, Nevada, New Hampshire, New Jersey, New York, Ohio, Oregon, South Dakota, Tennessee, Texas, Washington, West Virginia and Wisconsin, there are laws to protect the insuring public against discriminations or exorbitant insurance rates. There are some other states having some similar laws, but not quite as strong as the laws of the states I have just mentioned. We in California undoubtedly have a right to similar laws upon our statute books. It is simply a matter of whether this is brought to the attention of the public, and the serious effect of our situation understood by them, that we can secure the enactment by the next legislature of laws of that kind. If a saving of some \$10,000,000 a year is worth giving attention to, I believe we can secure it without any great efforts in this matter of insurance rates in California. I thank you. (Applause.)

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THE PROBLEMS OF A CITY MANAGER

By CLYDE L. SEAVEY

City Manager of Sacramento

Mr. President, Ladies and Gentlemen: There is just a question whether or not a person who has been in the office of city manager for only a year and three months is yet qualified to talk on all of the problems of a city manager. I presume there are more problems ahead of me, as there are some problems that are behind me, and some problems that are with me all the time. That is what goes with any public office.

In Sacramento, a year ago the first of last July, the new charter took effect, putting in a city manager as the responsible head of the administration of the city affairs. Generally, the duties of the city manager included and took over the executive functions of the city. There were, in a few instances, omissions in the powers of the city manager in Sacramento, that may be remedied or may not, in the future, which interrupt, to a slight degree, at least, the ability of the city manager to control all things in the executive end of the city's affairs. I presume that I am perfectly justified in speaking of my personal experience there, though it is perhaps more interesting to me than to you—I wish to develop what I have to say later by a recital of some of the facts regarding my experiences there in Sacramento.

I was nominated and selected by the City Council about a month before the new charter took effect—the latter part of May. I immediately got hold of a person who had had a good deal of experience in both municipal and state affairs, from the standpoint of organization, and, together with him and one whom I had selected to take the office of city controller, we made a survey

of the existing organization in Sacramento at that time, and built up a new organization in accordance with the provisions of the new charter, and in accordance with our belief as to what the organization should stand for. In so doing, we eliminated from the payroll of the city, taking effect as of July 1st, something over \$43,000 in salaries alone. By that I do not mean that we lowered salaries. In fact, we lowered no salary; we raised many salaries, and some of them were raised very considerably. But, as a net result, we saved about \$43,000 in annual salaries in reorganization. And, since the first of July a year ago, we have saved additional amounts above the original \$43,000 in the salary item. It was very gratifying to us at the end of the year's period that it was demonstrated that our original survey was within reason, and practically what was necessary in carrying on the affairs of the municipality.

As to what we have accomplished in Sacramento, I do not speak in any vain way, because it was there to be accomplished, and rather easily. What we accomplished has been accomplished in nearly every municipality that has changed to the manager form of government. And to a great extent the reason for the accomplishment is that it is a better form of municipal government than the others. To my mind it is the best form of municipal government, both theoretically and practically, that has ever been attempted in the United States.

The first year we reduced taxes by approximately \$123,000, and provided for more actual work to be done in the

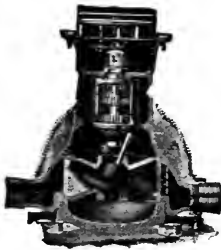
way of street improvements and street cleaning and things of that kind, than had been done before.

At the beginning of July, 1921, that being the middle of our fiscal year, we found a deficit of something like 20 per cent in the available funds of the municipality. That is to say for the remaining six months we had to run on about 40 per cent of the year's appropriation, and the records which we kept showed that we accomplished more work in proportion with that 40 per cent than had been accomplished on the 60 per cent in the first half of the fiscal year. That again is not necessarily a matter of credit to any individual. I ascribe the largest share to the fact that the funds and the operation of the city's affairs could be handled more easily, more directly, and more economically, because of the form of government, because there was no overlapping of departments, because there was actual,

absolute coordination between all the departments, for the reason that there was direct responsibility to one head on the part of all city heads of departments and city employes.

And there was no question about what that meant. It meant that we got results for every dollar expended. And results were what we were looking for. We were not looking in any way for any political manipulation or machination. That is one of the things that cannot be avoided in other forms of municipal government. There is no use talking about it, it is absolutely necessary in some forms of government, even to accomplish good in the government, to manipulate politically, and that is always at the cost of efficiency and economy in any government.

At the end of the first year, which was the first of July last, when we had operated six months under the old budget and six months under the new



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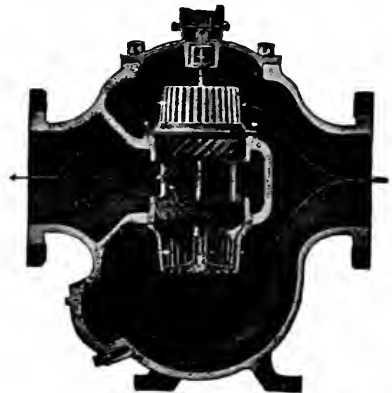
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budget, which was drawn after we went into office, I found that we had actually operated a year for \$103,000 less in operating cost of the same functions of the city affairs, than the government had been operated the year previous. And the records show that, as I have indicated before, we have accomplished more actual work, more streets repaired, and such things, than the year previous. That again was because there was the possibility of a properly working organization.

We reduced the fire hazard in Sacramento. The fire losses were reduced 80 per cent in the year. About a year ago last July, a survey of the city was made by the fire department, which had not been made for years, and a consistent follow-up in fire prevention was put into effect, and to a large extent, I believe, was responsible for the very small percentage of fire loss in comparison with that of previous years.

We have had our troubles. In the police department particularly, I find the opening for trouble for a city manager. The moral questions that must be handled through that department are quite a problem—they are a problem in any city. But we have accomplished considerable, I believe, there, because of the fixed responsibility and the direct action on the part of the department, through a responsible head. In fact, I know that we have practically eliminated the selling of drugs, where they were being sold promiscuously over a year ago. That has resulted in the reduction of petty crime, a big reduction in petty crime, in Sacramento. We have also reduced the outward evidences of prostitution. It will never be eliminated, of course, but the outward evidences of that have largely disappeared, and other moral issues have been forwarded to a great extent.

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The matter of liquor enforcement is another very difficult thing, because, in the minds of many people, it is not a thing to be desired, entirely; and where you find in the public mind a non-desire or undeveloped desire to believe in a certain law that is on the books, it is of course impossible to properly administer that law. And yet the outward evidences of that have been eliminated, to a large extent. I might put it this way, that what might be called the vulgar and open evidences of it have been largely eliminated from the streets of Sacramento, where they were very evident prior to the new administration.

We offered for adoption a little Volstead Act, but the people did not want it. So we went ahead the best we could with such means as we had at our hands, in cooperation to a certain extent with the Federal officers, unsatisfactory to a large degree, but we simply hammered away. You all have those problems, and probably the problem is just as difficult with you, and more difficult where you haven't the manager form of government.

We took over the garbage collection in Sacramento, and in the first year of operation, we have put it on a paying basis, and from the operation of the garbage department, based on the charges that were in existence before the city took it over, we have made a saving, we have netted a saving of a little over \$8,000 in the first eight months of this year. We purchased equipment at a cost of about \$12,000, and by the end of this year, we expect to have nearly if not wholly eliminated the cost of the equipment, and to have conducted the department in a manner practically satisfactory to the city. In evidence of this, before we took it over, the complaints from garbage collections were coming in at about the rate of



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100 to 110 a day. They are now coming in, and have been for several months past, to the extent of 10 to 15. We never expect to eliminate them, but we believe we have reduced them very appreciably, perhaps to a minimum.

In the way of legislation, the council has put over some excellent municipal ordinances, perhaps one of the best milk ordinances of any city in the state. There has been put into effect a traffic ordinance from which remarkably good results are coming, and our zoning ordinance is now nearly through its initial hearing. We have also followed stricter building restrictions, and they have proven that they were sadly needed.

The history of the operations in Sacramento, as I said, has been quite similar to that in other cities in the United States and in Canada, where they have this particular form of government. To my mind, there has been a remarkable proof of efficiency in the growth of this form of government, proving it to be a more practicable form, and a better form for municipalities than others that have been attempted. It has demonstrated by its growth that there is real merit in the method. Since 1913, nearly 300 cities, either by charter or ordinance, I think about 200 by charter and a little less than 100 by ordinance, have adopted this form of government. That is a remarkable record of growth in the establishment of any new governmental method in municipal affairs. Another remarkable thing about it is that no city of which I have knowledge that has adopted it by charter, has ever receded from it. I believe there were a few very small cities that repealed ordinances for city managers, or partial city manager forms, but those were for reasons other than that the system was not a good one. A number of

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cities of very small populations felt that they could not afford to have a person salaried high enough to take over the duties.

The reason, to my mind, that this is proving a good system of government, is because it is fundamentally sound. It is builded upon the same principle that our form of national government is builded, and our state governments, and that is, the separation of the legislative and executive functions of the government. Our municipal governments, outside of the manager form of government, have always been an intermixture of the legislative and executive powers. Our forefathers, in adopting the constitution of the United States, and our different states, in adopting the several state constitutions, have been far-sighted enough to provide that the three dis-

inct functions of government, the legislative, the executive and the judicial, should be kept separate. The fault in our municipal affairs of the past does not lie with individuals, except to a minor extent—individual frailty is not the reason that our municipal governments have been declared by experts to be the worst form of government in existence. It has been because the principle of our municipal government has been wrong. All signs point to the fact that the municipalities in the United States are coming, and will rapidly come to the point where there will be an elimination of the mixture of legislative and executive duties in municipal affairs. Not until then, in my belief, will we have the kind of municipal government in the United States that we ought to have.

(To be continued in the January issue)



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HIGHWAY COMMISSION ANSWERS RICHARDSON

Answering Governor-elect Richardson's charge, as given to the press, that the Highway Commission is letting contracts without having sufficient money in the bank at the present time to completely pay for each contract that is being let, the Commission has the following to say:

"There still remains unsold at the present time \$16,000,000 of State Highway bonds. These bonds are available as required.

"It has been the policy of the Highway Commission since the beginning of the work in 1912 to sell bonds from time to time as the money was needed to carry on the work and this policy is not only legal but is in line with good business practice and has saved to the State hundreds of thousands of dollars in interest charges.

"To adopt the plan advocated by Richardson in his statement and sell sufficient bonds before letting a contract to completely pay for that contract notwithstanding the fact that most of the money would not be required for many months and perhaps even a year would result in subjecting the State to the payment of hundreds of thousands of dollars of unnecessary interest charges annually. It is difficult indeed to harmonize a policy of that character with a program of either efficiency or economy.

"The California Highway Commission will turn over to the Richardson administration a highway system in good condition and well maintained. The responsibility for all new construction as well as for the proper maintenance of the present system will rest solely with him and cannot be avoided or shifted.

"A splendid highway engineering organization has been built up composed of able engineers selected solely because of their engineering ability and without regard or question as to their politics. They constitute a heritage which will be invaluable to the incoming administration and it is to be hoped that the same freedom from politics in connection with the highway forces may be continued in the future.

"The Commission is carrying forward the highway work in a regular and orderly fashion

and will continue to do so until the new administration takes charge. There would appear to be no real reason for stopping the work at this time nor would such procedure be for the best interests of state.

"It is to be regretted that he deems it necessary to resort to political tactics of this character. A little less politics and a little more constructive effort on his part would be in better taste and more conducive to confidence and of greater value to the state at large."

CONTRACTS PENDING FOR HIGHWAY WORK IN SIXTEEN COUNTIES

A large number of counties will be directly affected if highway work should be stopped in California as has been suggested.

At the present time, bids are pending for seventeen contracts in sixteen counties throughout the State.

These contracts according to the California Highway Commission are offered in regular course in the highway construction program and are offered now to permit contractors to get their work under way in the early spring. This is the usual course of procedure.

While funds are not in the treasury to meet these contracts, the Commission states that bonds are on hand in sufficient amount to assure the payment of all bills that will fall due under them. Attention is called to the fact that the flexible rate of interest on highway bonds assures their sale. The Commission further points out that heavy payments on any contracts that may be awarded now will not fall due until the summer months.

Of the seventeen contracts for which bids will be opened in December, seven are for grading contracts, two for resurfacing, three for bridges and five are paving contracts.

The list of contracts and the counties in which the proposed work is situated is as follows:

BIDS OPENED DECEMBER 11, 1922

Siskiyou County, between Granada and Yreka, about eight and five-tenths (8.5) miles in length, to be graded and paved with either Portland cement concrete, asphalt concrete or asphalt macadam.

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Siskiyou County, between two miles south of Hornbrook and Oregon State Line, about nine and eight-tenths (9.8) miles in length, to be graded.

Placer County, between Roseville and Lincoln, about five (5.0) miles in length, to be surfaced with asphalt concrete.

Glenn County, between Willows and a point three miles south of Glenn, about eleven and nine-tenths (11.9) miles in length, to be graded and surfaced with gravel.

Sonoma County, over the Northwestern Pacific Railroad near Lytton, a bridge consisting of three 32-foot reinforced concrete girder spans, with the necessary bents, abutments and wing walls.

Santa Clara County, between five miles east of Gilroy and San Felipe, about four and five-tenths (4.5) miles in length, to be graded and surfaced with gravel.

Fresno County, between Parkfield Junction and Coalinga, about eight and nine-tenths (8.9) miles in length, to be graded.

BIDS OPENED DECEMBER 18, 1922

Yuba County, between Morrison's Crossing and one mile south of Marysville, about eight and two-tenths (8.2) miles in length, to be paved with asphalt macadam.

Nevada County, between Nevada City and Little Deer Creek, about eleven and eight-tenths (11.8) miles in length, to be graded.

Contra Costa County, between Hercules and Rodeo, about one and eight-tenths (1.8) miles in length, to be graded and paved with Portland cement concrete.

San Benito and Santa Clara Counties, between Hollister and Pacheco Pass Road, about eight and two-tenths (8.2) miles in length, to be graded and paved with asphalt macadam.

Madera County, between Westerly Boundary and Califa, about fourteen and two-tenths (14.2) miles in length, to be graded and paved with asphalt macadam.

Ventura County, between a point $3\frac{1}{4}$ miles southeasterly from Hueneme Road and Rindge Ranch, about seven and four-tenths (7.4) miles in length, to be graded.

BIDS OPENED DECEMBER 26, 1922

Nevada County, between Donner Summit and Donner Lake, about three and three-tenths (3.3) miles in length, to be graded.

Imperial County, between New County Well and Old County Well at Plank Road, about nine and four-tenths (9.4) miles in length, to be graded and paved with asphalt concrete.

Glenn County, across Stony Creek near Hamilton City, a bridge consisting of four 100-foot steel truss spans and twenty 30-foot reinforced concrete girder approach spans.

Solano County, across the San Francisco-Sacramento Railroad near Denverton, a bridge consisting of two 34-foot and one 39-foot reinforced concrete girder spans, and grading approaches.

Bids are to be opened in December on 17 contracts. Of these 17 contracts—

- 5 are Paving Contracts
- 7 are grading contracts
- 2 are resurfacing contracts
- 3 are bridge contracts

All sections of the State are included in the work to be done and all of the work has been promised for many months and in some cases for years.

President Harding says that the world owes much to bankers; which is no doubt true, but he needn't rub it in.—Cleveland Plain Dealer.

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(Continued from page 420)

little juicier, it is all right—you can be just as mean as you want to to the young bull. But you can't, even under an anaesthetic, do anything to an animal that may be helpful to our knowledge of matters, that may enable us to raise our children, may help the community out of an undesirable situation. Suppose that through vivisection we learn how to keep tuberculosis out of the community. Suppose we learn how to keep out typhus—it used to be common. Suppose we learn to control typhoid through it. We have learned all those things by experiments. The man who rises and says, "You must stop, if it is for the benefit of medicine and the benefit of the public health," is a stumbling block in the path of progress.

It goes back to the snow-roof type of mind I spoke to you about earlier in my address. It is merely prejudice. Why, if California should do a thing of that kind, what do you suppose the world would think? It would be the first time in the world that such a foolish thing has been done. Because, even with all the ignorance of the middle ages in Europe, they soon learned that they must make a way for medicine, they must make a way for science, they must advance, they must learn more, as they were so ignorant. They knew all of that. So it is unthinkable that we should be stopped, even for a minute, with that sort of thing.

The point is this: Through medicine, public health has reached the stage to-day where it is a matter of dollars

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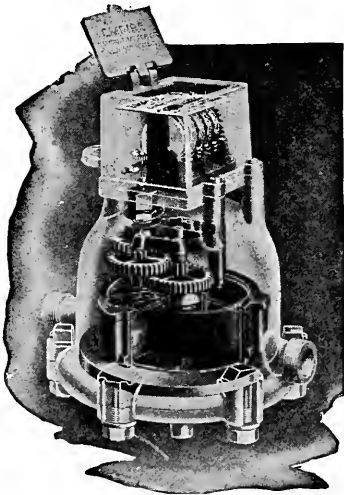
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and cents. It is purchasable. You can buy it for your community. Goethals, for a cent per person per day, bought health for the canal zone. Chicago at the same time was spending twenty-one cents per year per person, and, had fifteen thousand preventable deaths per year. If they had just put in the money that was put in on the Panama Canal Zone, they could have arrested all that waste of land that went into cemetery lots. You can put it just as you like, but if we want to reach the proper position in the matter, the only way to succeed and progress is by remembering something which was said a long while ago, that a healthy mind in a healthy body is the first essential. This gets truer every year.

So it is your problem in your communities to see that you purchase enough of this commodity for your people. You have got to see further than the ordinary individual, you must study

out the things that make for sound human beings, and you have got to start in with the school children above all things. You must oppose prejudice, misunderstanding, and all that sort of thing. Is there any other solution? You know perfectly well there is none. That is the only solution, to take the information that we have, add to it, and do the best we can. We are a democracy, it takes time to educate the members of our democracy, but we must keep at it. Disraeli, the great Englishman, said: "The first consideration of an enlightened statesman should be the health of the people." Isn't that right? It is the first consideration. What is all the rest about? What is the good of having beautiful streets if you are dead? What do you want of wonderful city planning, if half your people are going to die off early and not see the results? The first thing is to get the public health

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up, make your community that kind of a community. If you are only interested in people paying taxes, just remember that they pay them longer if they are alive. So, looking at it from any angle that you want, that becomes the primary thing, and you have got to interest yourselves in it.

We all know, when we meet the immediate consequence of a single bereavement, of a single sickness, of a child dying, and that sort of thing, how it appeals to our hearts. The difficulty is, we don't analyze it. We are still primitive. We don't analyze and say, "Was this a preventable death in this community? Is this one of the things that nature demands of us, or is it a thing we could have stopped?" When you look over the death rate and look over the funeral notices, just think in terms of the persons involved, and what it means. And when you think in those

terms, you will become real servants for your community in public health.

(Applause)

President Bartlett: As I listened to this very splendid address on public health by President Willbur, I was reminded of the time that Franklin K. Lane was nominated for the Governorship of California. The Republicans, as you will recall, had nominated Dr. Pardee, and when it came to the nomination speech for Mr. Lane, Tom O'Connor said, "The Republican party at this time reminds me of the man who, having eyes, sees not, and having ears, hears not—they have nominated an eye and ear specialist." I am sure I voice the sentiment of everyone present that we are very glad to have had a specialist on public health, a man of so great attainments, to speak to us on the subject of public health this morning.

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